

GENERAL NOTES:

1. ALL ENTRANCES SHALL CONFORM TO THE DELAWARE DEPARTMENT OF TRANSPORTATION'S (DELDOT'S) CURRENT STANDARDS AND REGULATIONS FOR SUBDIVISION STREETS AND STATE HIGHWAY ACCESS AND SHALL BE SUBJECT TO ITS APPROVAL.
2. ALL MATERIALS AND WORKMANSHIP, INCLUDING STORM DRAIN PIPING, INLET, MANHOLE AND END SECTION INSTALLATION, WITHIN THE STATE OF DELAWARE RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH CURRENT STATE OF DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SUPPLEMENTAL SPECIFICATIONS, STANDARD CONSTRUCTION DETAILS, SPECIAL PROVISIONS AND DESIGN GUIDANCE MEMORANDUMS.
3. ALL DISTURBED AREAS WITHIN THE STATE RIGHT-OF-WAY, BUT NOT IN THE PAVEMENT, SHALL BE TOP-SOILED (6" MINIMUM), FERTILIZED, SEEDED AND MULCHED.
4. A 72-HOUR (MINIMUM) NOTICE SHALL BE GIVEN TO THE DELDOT DISTRICT PERMIT SUPERVISOR PRIOR TO STARTING ENTRANCE CONSTRUCTION.
5. MISS UTILITY OF DELAWARE SHALL BE NOTIFIED THREE (3) CONSECUTIVE WORKING DAYS PRIOR TO EXCAVATION, AT 1-800-282-8555.
6. ALL SIGNING, STRIPING AND MAINTENANCE OF TRAFFIC IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL FOLLOW THE GUIDELINES SHOWN IN THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (DE MUTCD) FOR STREETS AND HIGHWAYS (LATEST EDITION). THE CITY OF NEWARK SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL SIGNS INSTALLED AS PART OF THIS PROJECT.
7. PLAN LOCATION AND DIMENSIONS SHALL BE STRICTLY ADHERED TO UNLESS OTHERWISE DIRECTED BY THE DELDOT DISTRICT PERMIT SUPERVISOR.
8. A COPY OF THE UP TO DATE APPROVED CONSTRUCTION DOCUMENTS AND DELDOT APPROVAL LETTERS SHALL BE MAINTAINED ON THE PROJECT SITE AT ALL TIMES AND BE AVAILABLE FOR INSPECTION BY DELDOT PERSONNEL.
9. EXISTING UTILITIES ARE SHOWN IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION. COMPLETENESS OR CORRECTNESS THEREOF IS NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE UTILITY COMPANIES INVOLVED IN ORDER TO SECURE THE MOST ACCURATE INFORMATION AVAILABLE AS TO UTILITY LOCATION AND ELEVATION. NO CONSTRUCTION AROUND OR ADJACENT TO UTILITIES SHALL BEGIN WITHOUT NOTIFYING THEIR OWNERS AT LEAST 48-HOURS IN ADVANCE. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE AND ANY DAMAGE DONE TO THEM DUE TO HIS/HER NEGLIGENCE SHALL BE IMMEDIATELY AND COMPLETELY REPAIRED AT THE CONTRACTOR'S EXPENSE. TO LOCATE EXISTING UTILITIES IN THE FIELD PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT MISS UTILITY OF DELAWARE (SEE NOTE #5).
10. SHOULD UTILITY RELOCATION BE REQUIRED, THE DEVELOPER MUST SUBMIT A UTILITY RELOCATION PLAN FOR DELDOT REVIEW, ALONG WITH CORRESPONDENCE FROM THE UTILITY COMPANIES STATING PRELIMINARY APPROVAL TO THE RELOCATION AND DESIGN OF THE UTILITIES PRIOR TO THE DELDOT PRE-CONSTRUCTION MEETING. NO PHYSICAL CONSTRUCTION CAN OCCUR UNTIL THE UTILITY PLANS ARE APPROVED, THE INDIVIDUAL UTILITY COMPANIES ISSUE FINAL APPROVAL, AND A DELDOT UTILITY PERMIT IS ISSUED.
11. DESIGN, FABRICATION AND INSTALLATION OF ALL PERMANENT SIGNING SHALL BE AS OUTLINED IN THE DE MUTCD.
12. DESIGN AND INSTALLATION OF ALL PAVEMENT MAKINGS AND STRIPING SHALL BE AS OUTLINED IN THE DE MUTCD. FOR FINAL PERMANENT PAVEMENT MARKINGS:
 - A) EPOXY RESIN PAINT SHALL BE REQUIRED FOR LONG LINE STRIPING.
 - B) THERMO WILL BE REQUIRED FOR SHORT LINE STRIPING, I.E. SYMBOLS/LEGENDS.
13. BREAKAWAY POSTS SHALL BE USED WHEN INSTALLING ALL SIGNS. REFERENCE DELDOT STANDARD CONSTRUCTION DETAIL T-15.
14. THE ENDS OF ALL CURBS SHALL BE DEPRESSED FLUSH WITH THE PAVEMENT AT A RATIO OF TWELVE TO ONE (12:1). TAPER CURB PER LOCAL DELDOT DISTRICT FIELD SUPERVISOR (TYPICAL FOR BOTH SIDES OF THE ENTRANCE).
15. A DOUBLE YELLOW CENTERLINE WILL BE REQUIRED ALONG THE PAVED PORTION OF PAPER MILL ROAD (N-13). STRIPING OF THE CENTERLINE SHALL BE 5-INCH WIDE LINE SEPARATED BY A 6-INCH SPACE.
16. VERIFY IF ANY UTILITIES WILL NEED TO BE RELOCATED DUE TO THE ADDITION OF THE SHOULDER. FOR CLEAR ZONE PURPOSES, ALL UTILITIES ARE TO BE A MINIMUM OF 10-FEET FROM THE EDGE OF TRAVEL LANE OR 5-FEET FROM THE EDGE OF PAVEMENT. ANY UTILITY THAT DOES NOT MEET THIS REQUIREMENT SHALL BE RELOCATED.
17. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSURE THAT PAVING WITHIN THE STATE OF DELAWARE RIGHT-OF-WAY IS INSTALLED TO THE ELEVATIONS SHOWN AND THAT NO PONDING OF WATER EXISTS AFTER PAVING IS COMPLETE.
18. ALL STORM DRAIN PIPING DESIGNATED AS RCP IS TO BE REINFORCED CONCRETE PIPE, MEETING AASHTO M-170 SPECIFICATIONS. SEE PLANS FOR SPECIFIC CLASS OF PIPE.
19. DRIVEWAYS WILL NOT BE PERMITTED TO BE PLACED AT CATCH BASIN LOCATIONS.
20. THE DEVELOPER EXISTING/FUTURE OWNER OF NON-STATE-MAINTAINED ROADWAYS SHALL ENSURE THAT THE TRAFFIC CONTROL DEVICES ON SAID ROADWAYS OPEN TO PUBLIC TRAVEL ARE IN COMPLIANCE WITH THE DELAWARE MUTCD.
21. CONTRACTOR SHALL SUPPLY MESSAGE BOARDS THAT ARE TO BE PLACED TEN (10) DAYS PRIOR TO CONSTRUCTION ALONG PAPER MILL ROAD. THE PROPER WORDING ON THE MESSAGE BOARD WILL NEED TO BE COORDINATED WITH THE DISTRICT SAFETY OFFICER.
22. WARM MIX ASPHALT (WMA) SHALL BE PLACED IN ACCORDANCE WITH DELDOT SPECIAL PROVISION(S) 401801, 401807, 401816 AND 401819 - WMA SUPERPAVE.

TOA RECOMMENDATIONS

AS PER THE TRAFFIC OPERATIONAL ANALYSIS FOR CURTIS PAPER MILL PARK DATED JULY 2012, THE FOLLOWING ITEMS SHOULD BE INCORPORATED INTO THE SITE DESIGN AND REFLECTED ON THE RECORD PLAN. ALL APPLICABLE AGREEMENTS (I.E., LETTER AGREEMENTS FOR OFF-SITE IMPROVEMENTS AND TRAFFIC SIGNAL AGREEMENTS) SHOULD BE EXECUTED PRIOR TO ENTRANCE PLAN APPROVAL FOR THE PROPOSED PARK.

1. PROVIDE ONE ENTERING LANE AND ONE EXISTING LANE FOR THE SITE DRIVEWAY WHICH WILL FORM THE 4TH LEG OF THE SIGNALIZED INTERSECTION.
2. PROVIDE A NORTHBOUND LEFT-TURN LANE ON PAPER MILL ROAD WITH 75 FEET OF STORAGE.
3. RESTRIPE THE WESTBOUND APPROACH OF OLD PAPER MILL ROAD TO FORM A SHARED LEFT/THROUGH LANE AND A SEPARATE RIGHT-TURN LANE.
4. PROVIDE PEDESTRIAN CROSSWALK AND PEDESTRIAN SIGNAL EQUIPMENT ACROSS THE NEW EASTBOUND APPROACH.
5. UPGRADE SIGNAL EQUIPMENT/DESIGN TO ACCOMMODATE THE NEW INTERSECTION GEOMETRY.
6. ADJUST SIGNAL PHASING AND TIMINGS TO ACCOMMODATE THE NEW INTERSECTION GEOMETRY.

CURTIS MILL PARK

NEWARK, DE

COMMERCIAL

ENTRANCE PLANS

PAPER MILL ROAD (N-13) AND OLD PAPER MILL ROAD (N-310)

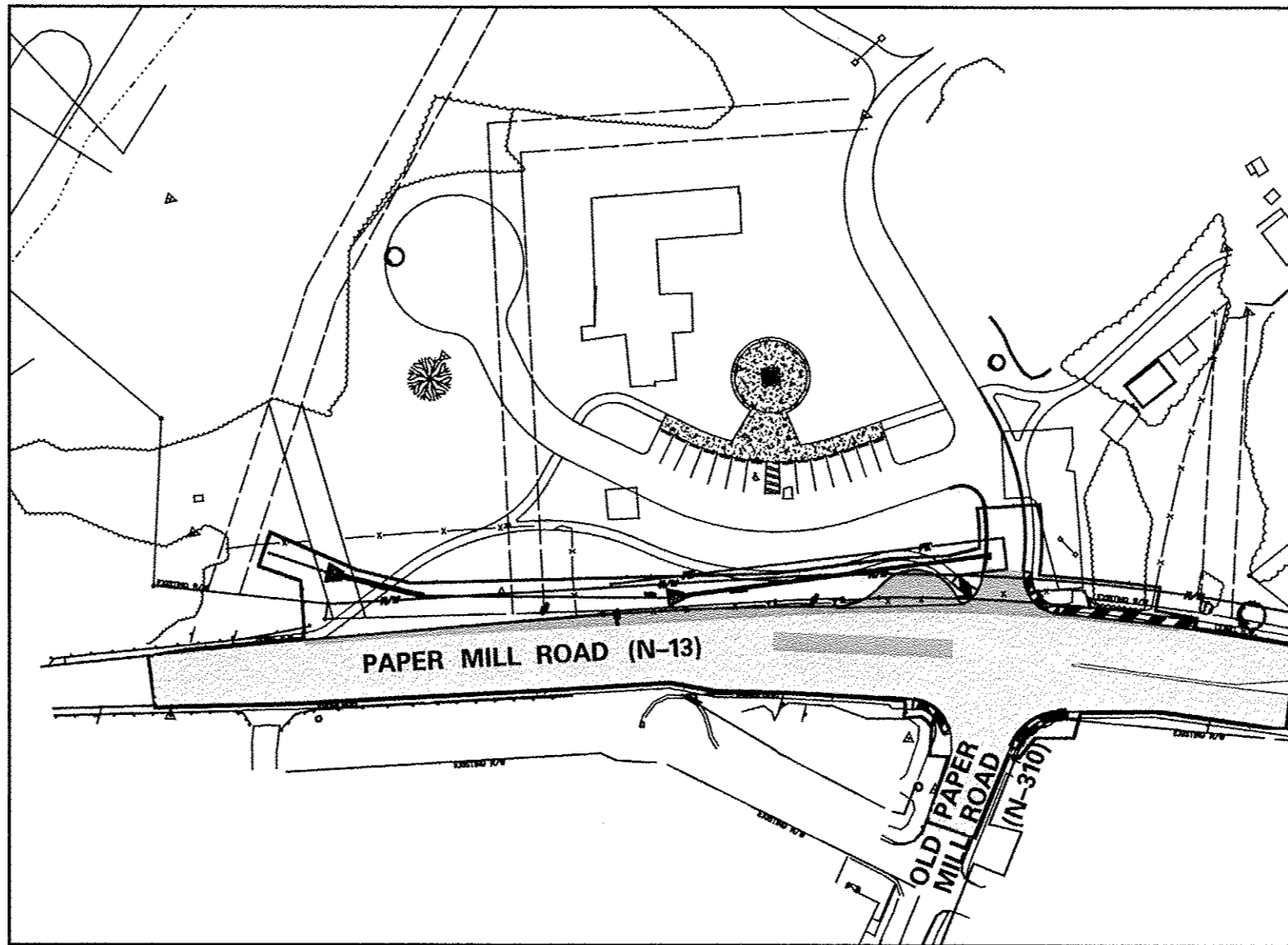
DATE: DECEMBER 14, 2012

PREPARED FOR:

CITY OF NEWARK

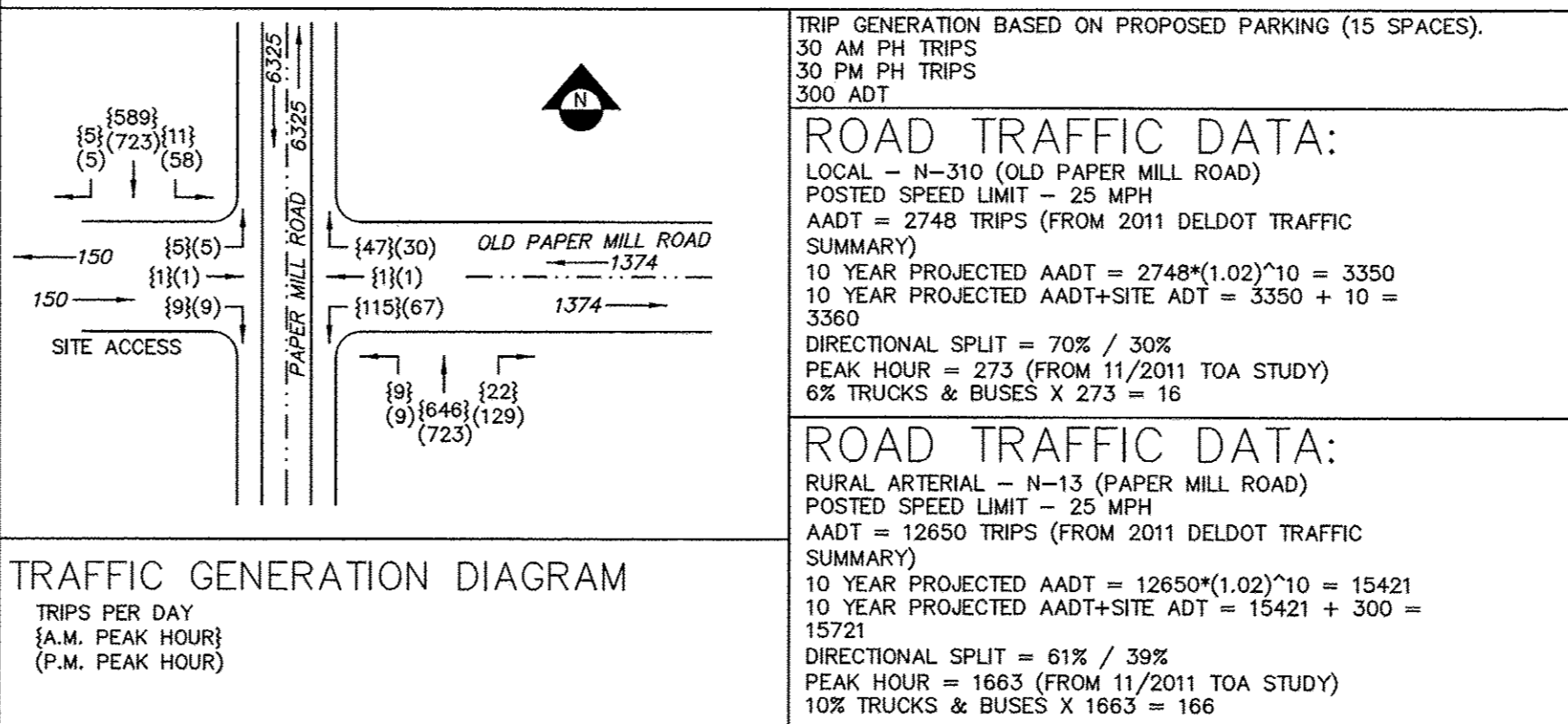
220 SOUTH MAIN STREET

NEWARK, DE 19711



KEY MAP
SCALE: 1" = 100'

TRIP GENERATION - PAPER MILL ROAD(N13)/OLD PAPER MILL ROAD (N310)



GENERAL SITE DATA

APPLICATION NO.	TBD
TAX PARCEL NO.	18-014.00-266
LAND USE	225 PAPER MILL RD
EXISTING/PROPOSED SITE	NEWARK, DE 19711
SOURCE OF TITLE	DEED RECORD 2645-300
ZONING DISTRICT	18PL
GROSS ACREAGE	7.38 AC.
VERTICAL DATUM	NAVD 1988
PROPERTY OWNER NAME	CITY OF NEWARK
PROPERTY OWNER ADDRESS	P.O. BOX 39 NEWARK, DE 19715

DATE	NO.	REVISIONS	BY
3/19/13	1	ADDRESS COMMENTS FROM PRELIMINARY ENTRANCE REVIEW	KMS
7/11/13	2	ADDRESS COMMENTS FROM SEMI-FINAL ENTRANCE REVIEW	KMS
9/26/13	3	ADDRESS COMMENTS FROM FINAL ENTRANCE REVIEW	KMS

INDEX OF SHEETS

SHEET NO.	DRAWING NO.	DESCRIPTION
1	CS-2500	COVER SHEET
2	CS-2501	CONSTRUCTION PLAN
3	CS-2502	PROFILE PLAN
4	CS-2503	GRADING PLAN AND CURVE DATA
5	CS-2504	ROADWAY DETAILS
6	CS-2505	CRITICAL CROSS SECTIONS
7	CS-2506	EROSION AND SEDIMENT CONTROL AND
8	CS-2507	DETAIL SHEET
9	CS-2508	MAINTENANCE OF TRAFFIC AND
10	CS-2509	DETAIL SHEET
11	CS-2510	SIGNING AND STRIPING PLAN
12	CS-2511	SIGNAL PLAN

LEGEND

EXISTING	PROPOSED
● MONUMENT FOUND	— LOC — LIMIT OF DISTURBANCE
■ P.K. NAIL FOUND	— LOC — LIMIT OF CONSTRUCTION
○ BENCHMARK	— PHASING LINE
○ TREE	⑦ PHASING NUMBER
○ GAS VALVE	⑦ NUMBER OF PARKING SPACES
○ GAS METER	— CONCRETE
○ UNDERGROUND GAS MARKER	— BUILDING
○ GAS MANHOLE	— BUILDING CANOPY
○ GAS LINE	— CURB
○ BOLLARD	— FLUSH/DEPRESSED CURB
○ BORE HOLE	— CURB AND GUTTER TYPE 3
○ MONITORING WELL	— CURB TO BE REMOVED
○ TELEPHONE BOX	— BOLLARD
○ TELEPHONE MANHOLE	— MINOR CONTOUR
○ TELEPHONE POLE	— MAJOR CONTOUR
○ TELEPHONE LINE	— SPOT GRADE
○ POWERPOLE	— DRAINAGE INLET
○ GUY WIRE	— DRAINAGE MANHOLE
○ LIGHT POLE	— STORMTECH ISOLATOR ROW
○ STREET LIGHT POLE	— STORM SEWER
○ BURIED ELECTRIC	— SANITARY MANHOLE
○ OVERHEAD ELECTRIC	— SANITARY SEWER
○ ELEC. MANHOLE	— ELECTRIC SERVICE
○ ELECTRIC METER	— GAS SERVICE
○ WATER LINE	— TELEPHONE SERVICE
○ WATER MANHOLE	— WATER SERVICE
○ WATER VALVE	— WATER VALVE
○ WATER METER	— LEVEL SPREADER
○ HYDRANT	— TYPE 2 INLET PROTECTION
○ BACK FLOW PREVENTOR	— SILT FENCE
○ SAN. SEWER LINE	— EROSION EEL
○ SEWER MANHOLE	— STABILIZED CONSTRUCTION ENTRANCE
○ CLEAN OUT	— BRL
○ STORM DRAIN LINE	— SIGN
○ STORM DRAIN MANHOLE	— 5" SOLID WHITE STRIPE
○ STORM INLET	— 5" SOLID DOUBLE YELLOW STRIPE
○ CURB INLET	— 5" DASHED WHITE STRIPE
○ SPOT GRADE	— AREA OF MILL AND OVERLAY
--- EXISTING RIGHT-OF-WAY	— AREA OF FULL DEPTH PAVEMENT
--- STONE CHECK DAM	— PROPOSED RIGHT-OF-WAY
○ ROCK OUTLET PROTECTION	— INLET SEDIMENT CONTROL
	— SIDEWALK, MIN. 4" CEMENT CONCRETE PAVEMENT (3000 PSI) OVER 4" G.A.B.C.

UTILITY USER LIST

USER	ADDRESS	TELEPHONE
CITY OF NEWARK - ELECTRIC RICK VITELLI, DIRECTOR	CITY OF NEWARK ELECTRICAL DEPARTMENT P.O. BOX 390 220 SOUTH MAIN STREET NEWARK, DE 19715	(302) 366-7055
CITY OF NEWARK - WATER ROY SIMONSON	CITY OF NEWARK WATER AND WASTEWATER DEPARTMENT P.O. BOX 390 220 SOUTH MAIN STREET NEWARK, DE 19715	(302) 366-7055
DELMARVA POWER - ELECTRIC MARK SMITH C.C. ANGEL COLLAZO	ROUTE 273 & I-95 401 EAGLE RUN ROAD NEWARK, DE 19702	(302) 454-0300
DELMARVA POWER - GAS THEODORE WAUGH, GAS ENGINEERING	630 MARTIN LUTHER KING JR. BLVD. P.O. BOX 231 WILMINGTON, DE 19899	(302) 429-3423
DEL STATE HIGHWAY DEPT. DAVE FORD	250 BEAR CHRISTIANA RD BEAR, DE 19702	(302) 326-4584
VERIZON GEORGE ZANG	2 SOUTH INDUSTRIAL WAY MILFORD, DE 19963	(302) 422-1238

PREPARED BY
PENNONI ASSOCIATES INC.
CONSULTING ENGINEERS

121 CONTINENTAL DRIVE - SUITE 207
NEWARK, DELAWARE 19713
PHONE: 302-655-4451
FAX: 302-654-2895

Philip Andrew Hoseney
SIGNATURE

9.26.2013
DATE

APPROVED BY

SIGNATURE

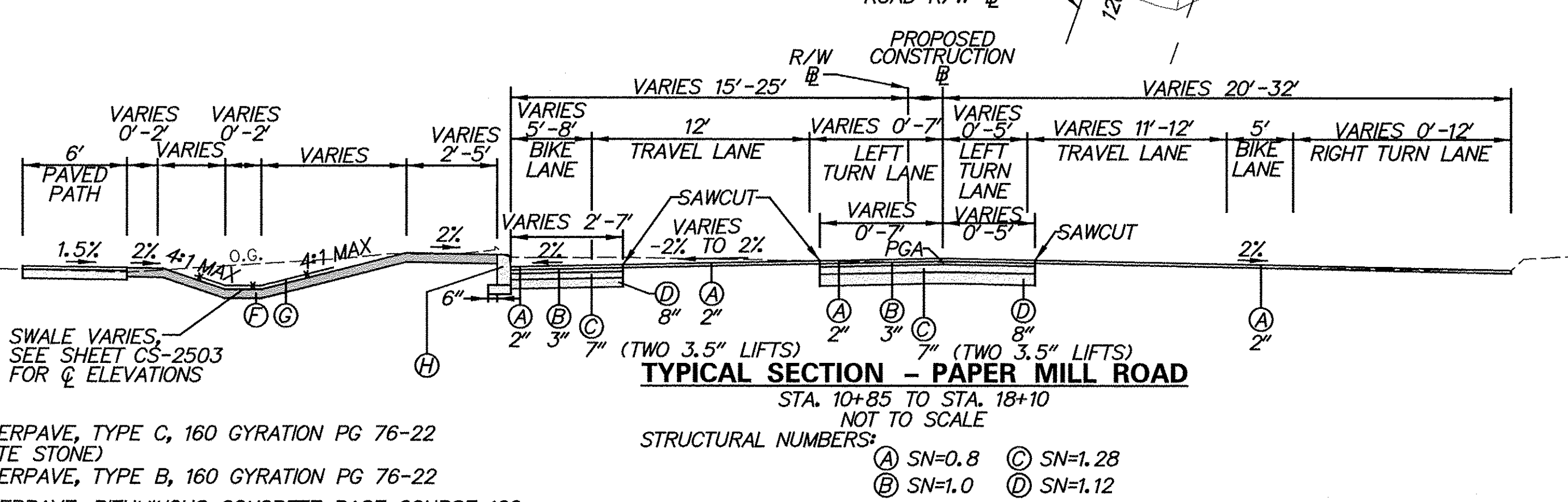
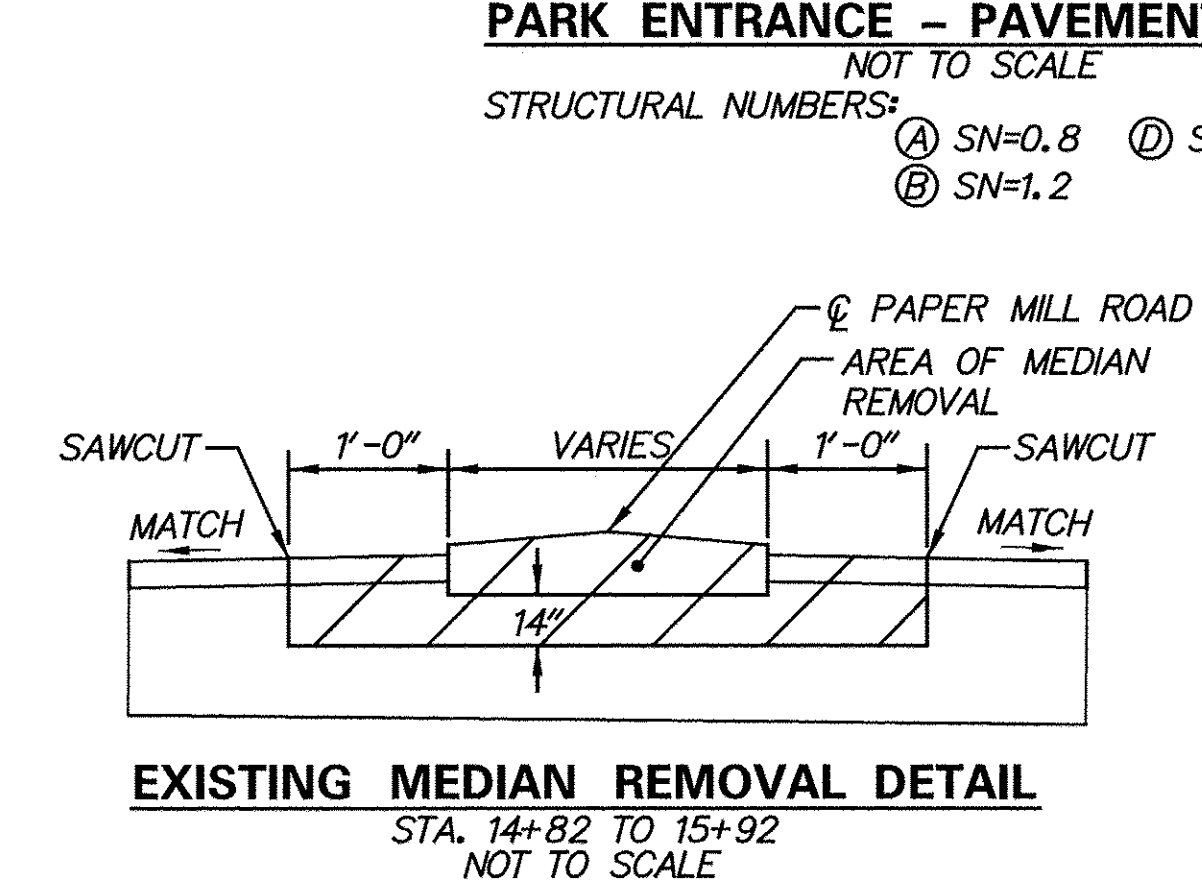
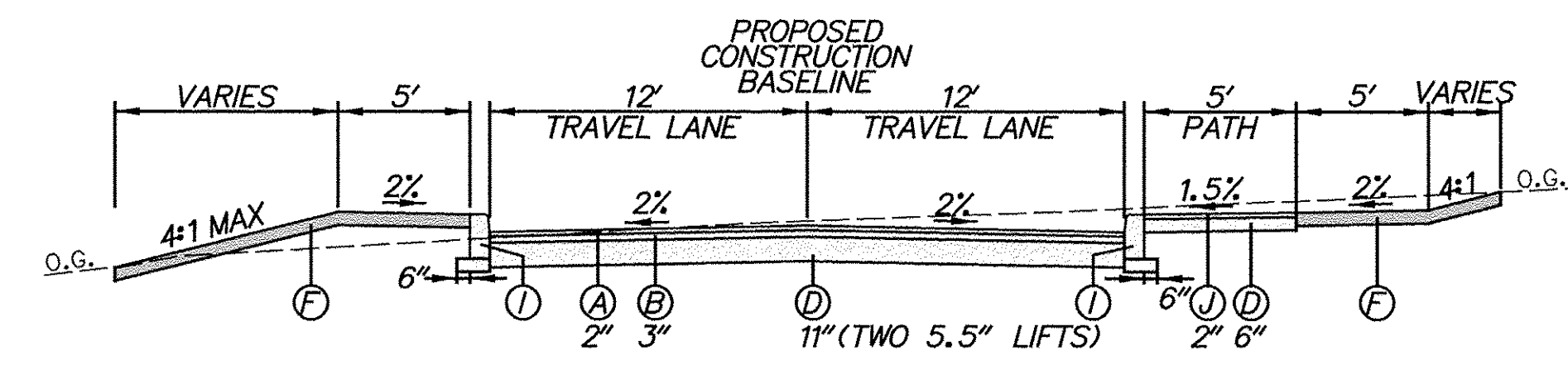
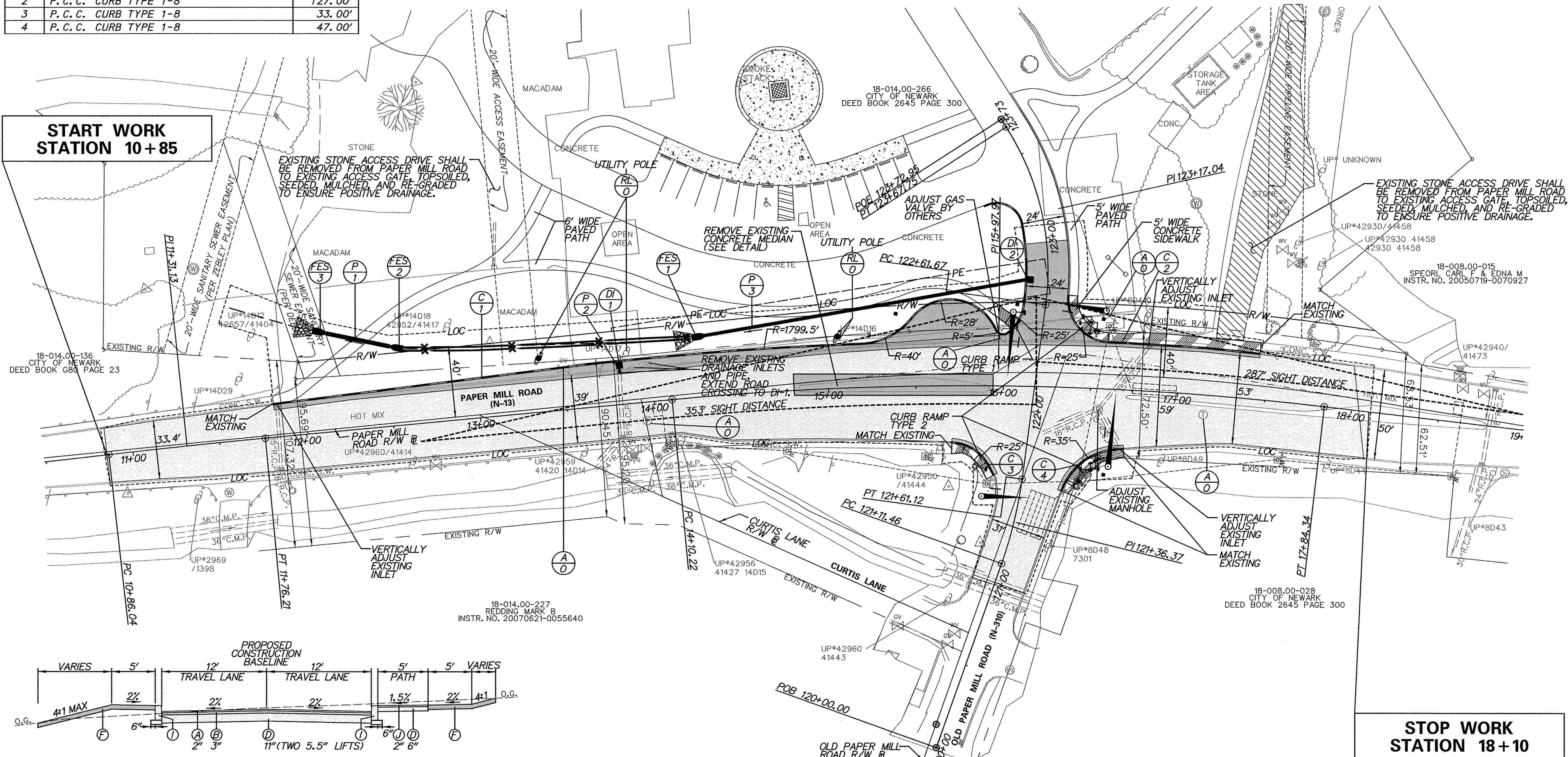
DATE

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
1	13+82.01	-22.44	34" x 24"	TYPE 1	67.24	64.64
2	122+75.18	-10.93	48" x 30"	TYPE 1	74.52	67.88

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
1	P.C.C. CURB TYPE 1-8	504.00'
2	P.C.C. CURB TYPE 1-8	127.00'
3	P.C.C. CURB TYPE 1-8	33.00'
4	P.C.C. CURB TYPE 1-8	47.00'

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INV. EL.	D.S. EL.
1	18" HDPE	4	41'	0.0050	66.12	65.95
2	18" RCP	4	6'	0.0050	64.64	64.52
3	18" HDPE	4	187'	0.0050	67.88	66.95

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
1	18" HDPE	0.0050	NO
2	18" HDPE	0.0050	NO
3	18" HDPE	0.0050	NO



- LEGEND**
- (A) WMA, SUPERPAVE, TYPE C, 160 GYRATION PG 76-22 (CARBONATE STONE)
 - (B) WMA, SUPERPAVE, TYPE B, 160 GYRATION PG 76-22
 - (C) WMA, SUPERPAVE, BITUMINOUS CONCRETE BASE COURSE 160 GYRATIONS PG 64-22
 - (D) GRADED AGGREGATE BASE COURSE, TYPE B
 - (E) P.C.C. SIDEWALK, 4" DEPTH
 - (F) TOPSOIL, 6" DEPTH OR TOPSOILING, 6" DEPTH PERMANENT GRASS SEEDING, WET GROUND
 - (G) SOIL RETENTION BLANKET MULCH, TYPE 5
 - (H) P.C.C. CURB, TYPE 1-8
 - (I) P.C.C. CURB, TYPE 1-6
 - (J) WMA, SUPERPAVE, TYPE C, 115 GYRATIONS PG 64-22

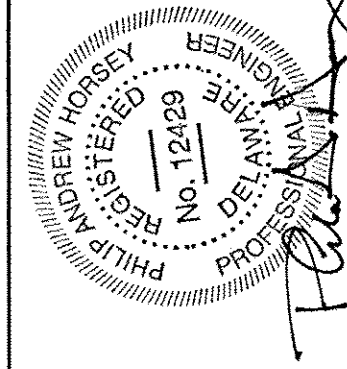
GENERAL NOTES:

- VERTICAL DATUM = NAVD 1988
- UNLESS OTHERWISE SPECIFIED ON THE PLAN, SIDEWALKS SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THIS PLAN. SIDEWALKS SHALL BE FIVE FEET (5') IN WIDTH AND CONSTRUCTED OF PORTLAND CEMENT CONCRETE.
- POSTAL BOXES SHALL BE INSTALLED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE UNITED STATES POSTAL SERVICE.
- DRAINAGE, EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT SHALL BE PROVIDED IN ACCORDANCE WITH DNREC REGULATIONS.
- ALL EXISTING UTILITIES, VALVE BOXES, MANHOLES, AND INLET GRATES SHALL BE FLUSH WITH FINISHED GRADE.

Pennoni

NO.	DATE	REVISIONS	BY
1	3/19/13	ADDRESS COMMENTS FROM PRELIMINARY ENTRANCE REVIEW	KMS
2	7/11/13	SEMI-FINAL ENTRANCE REVIEW	KMS
3	9/16/13	ADDRESS COMMENTS FROM FINAL ENTRANCE REVIEW	KMS

ALL DIMENSIONS MUST BE VERIFIED BY THE FIELD ENGINEER PRIOR TO ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.



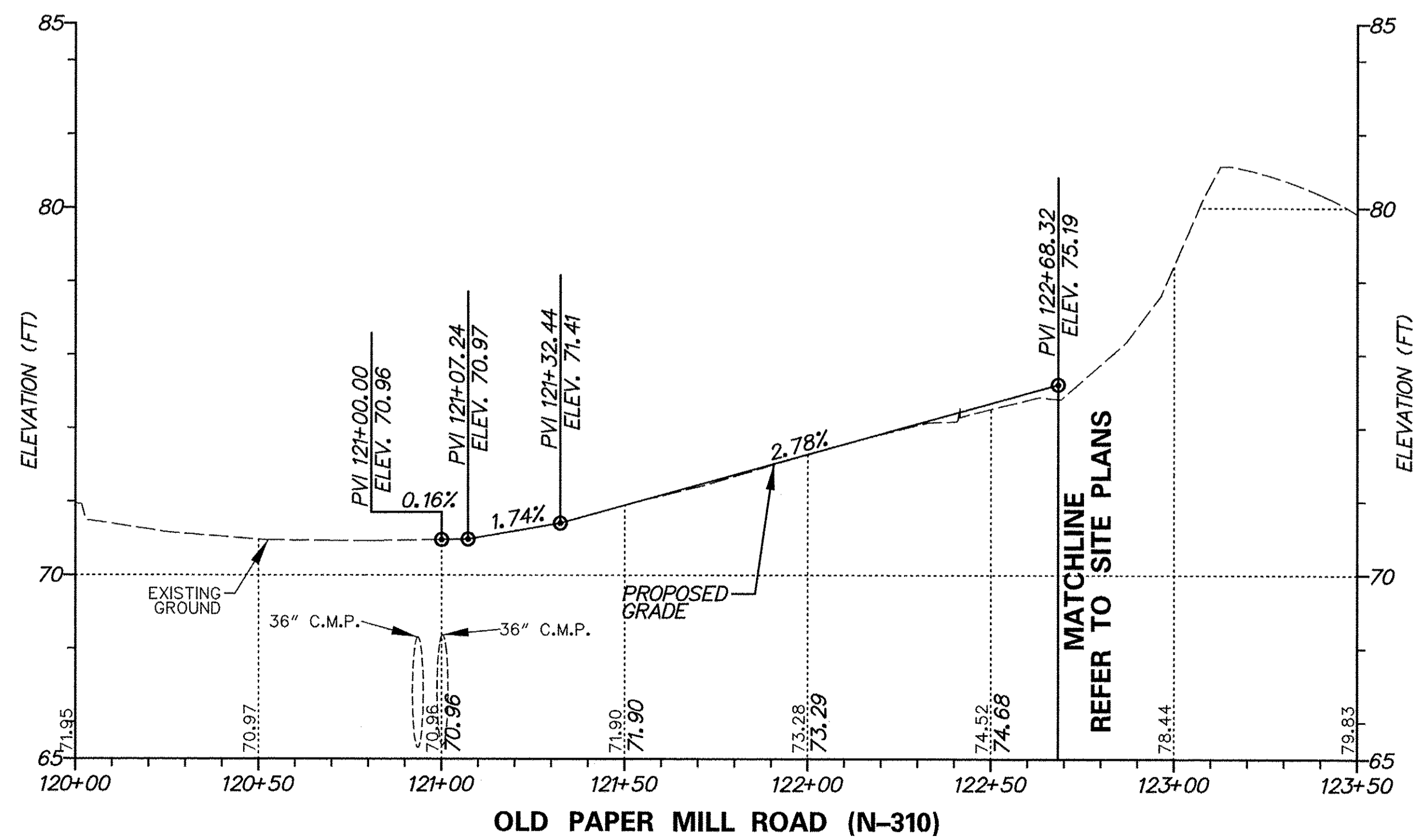
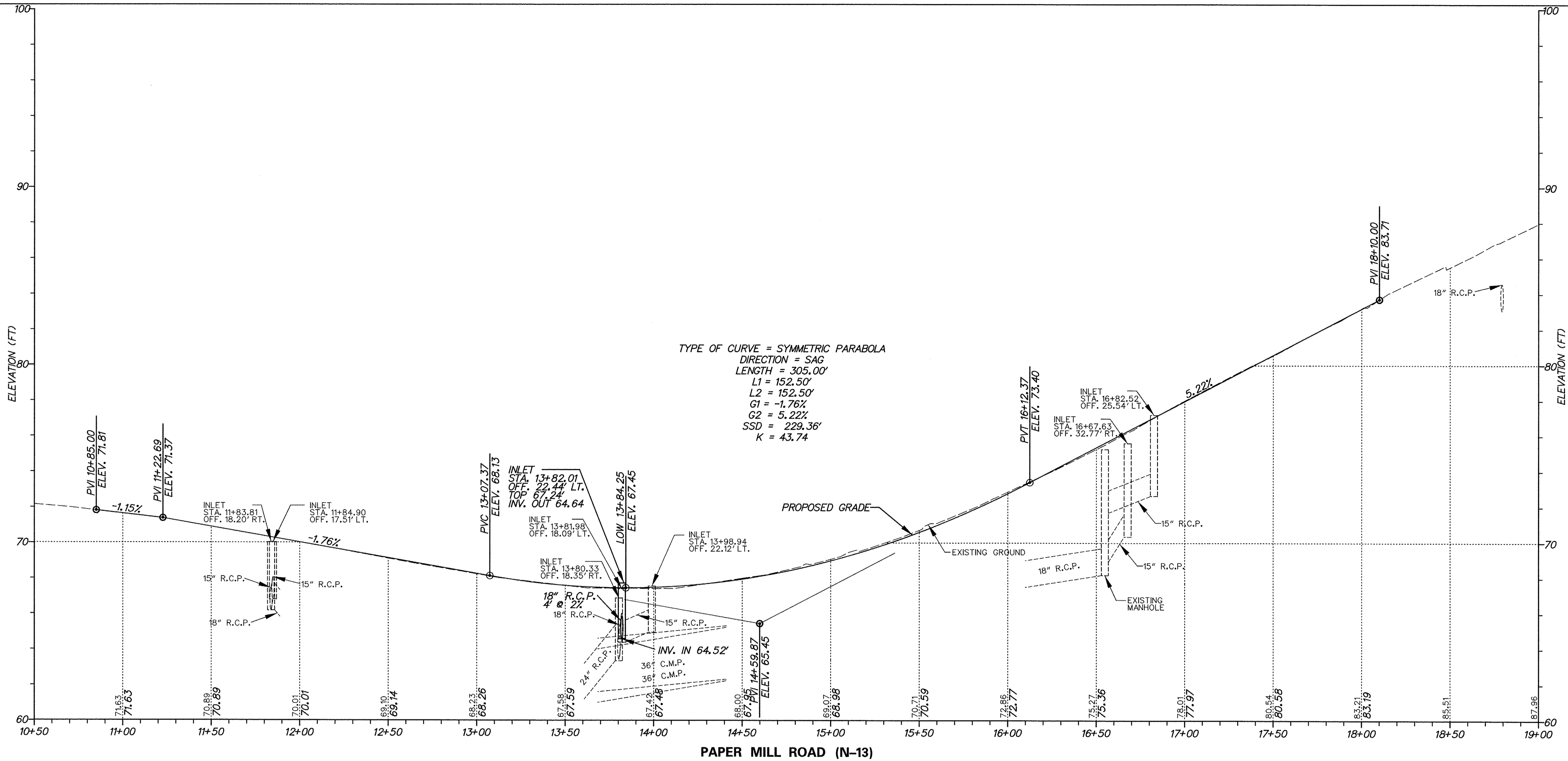
Pennoni Associates Inc. Engineers • Planners • Surveyors • Landscape Architects

CURTIS MILL PARK
NEWARK, DELAWARE
COMMERCIAL ENTRANCE
CONSTRUCTION PLAN
CITY OF NEWARK
220 SOUTH MAIN STREET
NEWARK, DE 19711

JOB NO.	CNEW 1207
BLOCK MAP NO.	SHEET
	2 OF 12

SCALE	1"=30'
DRAWN BY	KMS/TJA
DATE	12/14/2012
APPROVED	

CS-2501



VERTICAL SCALE
 9
 6
 3
 0
 FEET

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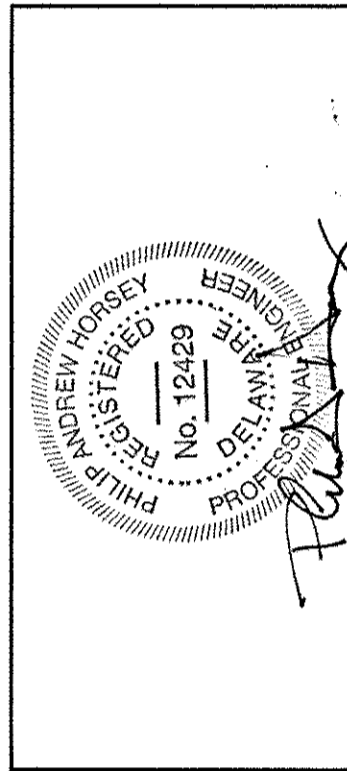
CURTIS MILL PARK
 NEWARK, DELAWARE
 COMMERCIAL ENTRANCE
 ROADWAY PROFILE
 CITY OF NEWARK
 220 SOUTH MAIN STREET
 NEWARK, DE 19711

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR THE REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES, AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

BLOCK MAP NO.	JOB NO. CNEW 1207
SHEET 3 OF 12	

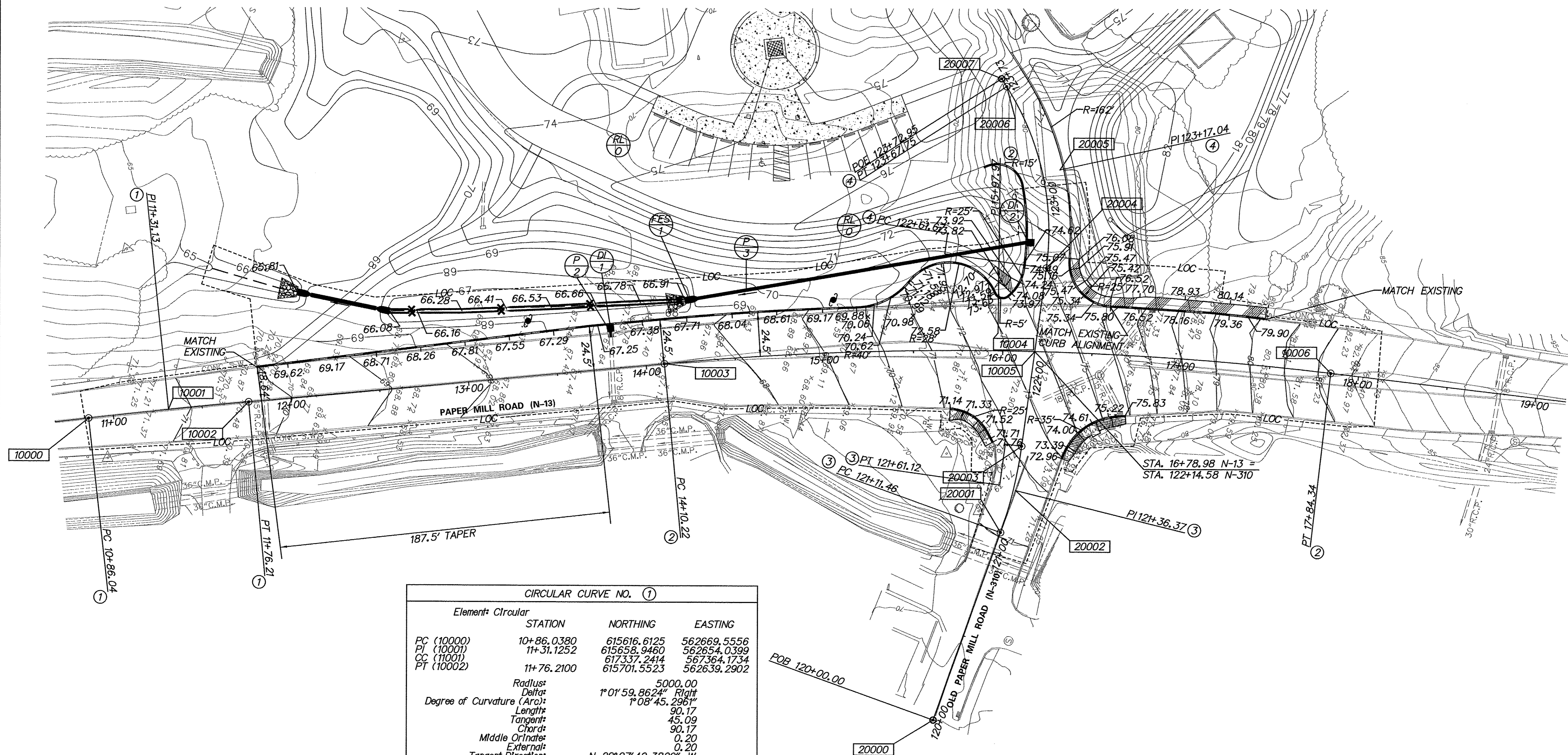
SCALE 1"=30'	DRAWING NO. CS-2502
DRAWN BY KMS	
DATE 12/14/2012	
APPROVED	

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER BEFORE PROCEEDING WITH THE WORK.



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3/19/13	1	ADDRESS COMMENTS FROM PRELIMINARY ENTRANCE REVIEW	KMS
7/11/13	2	ADDRESS COMMENTS FROM SECOND ENTRANCE REVIEW	KMS
9/16/13	3	ADDRESS COMMENTS FROM FINAL ENTRANCE REVIEW	KMS





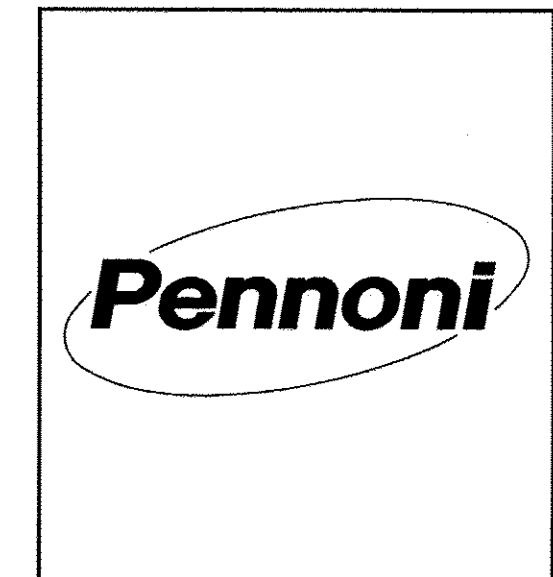
CONSTRUCTION ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
10000	10+86.04	0.0000'	615616.6125	562669.5556
10001	11+31.13	0.0000'	615658.9460	562654.0399
10002	11+76.21	0.0000'	615701.5523	562639.2902
10003	14+10.22	0.0000'	615922.6849	562562.7371
10004	16+17.98	0.0000'	616122.5367	562506.4032
10005	15+97.97	0.0000'	616100.1104	562501.3149
10006	17+84.34	0.0000'	616286.4598	562478.3722
20000	120+00.00	0.0000'	616116.2817	562720.0065
20001	121+11.46	0.0000'	616127.9304	562609.1616
20002	121+36.37	0.0000'	616130.5349	562584.3785
20003	121+61.12	0.0000'	616127.9921	562559.5890
20004	122+61.67	0.0000'	616117.7321	562459.5629
20005	123+17.04	0.0000'	616112.0825	562404.4836
20006	123+67.75	0.0000'	616072.0017	562366.2844
20007	123+72.95	0.0000'	616068.2353	562362.6948

CIRCULAR CURVE NO. ①			
Element: Circular	STATION	NORTHING	EASTING
PC (10000)	10+86.0380	615616.6125	562669.5556
PI (10001)	11+31.1252	615658.9460	562654.0399
CC (11001)	617337.2414	567364.1734	
PT (10002)	11+76.2100	615701.5523	562639.2902
Radius:	5000.00		
Delta:	1°01'59.8624" Right		
Degree of Curvature (Arc):	1°08'45.2961"		
Length:	90.17		
Tangent:	45.09		
Chord:	90.17		
Middle Ordinate:	0.20		
External:	0.20		
Tangent Direction:	N 20°07'42.3829" W		
Radial Direction:	N 63°52'17.6171" E		
Chord Direction:	N 19°38'42.4517" W		
Radial Direction:	N 70°54'17.4796" E		
Tangent Direction:	N 19°05'42.5203" W		

CIRCULAR CURVE NO. ②			
Element: Circular	STATION	NORTHING	EASTING
PC (10003)	14+10.2184	615922.6849	562562.7371
PI (10004)	15+97.9749	616100.1104	562501.3149
CC (11003)	616503.3545	564240.0707	
PT (10006)	17+84.3402	616286.4598	562478.3722
Radius:	1775.00		
Delta:	12°04'35.0099" Right		
Degree of Curvature (Arc):	3°13'40.5524"		
Length:	374.12		
Tangent:	187.76		
Chord:	373.43		
Middle Ordinate:	9.85		
External:	9.90		
Tangent Direction:	N 19°05'42.5203" W		
Radial Direction:	N 70°54'17.4796" E		
Chord Direction:	N 13°03'25.0155" W		
Radial Direction:	N 82°58'52.4895" E		
Tangent Direction:	N 07°01'07.5106" W		

CIRCULAR CURVE NO. ③			
Element: Circular	STATION	NORTHING	EASTING
PC (20001)	121+11.4553	616127.9304	562609.1616
PI (20002)	121+36.3749	616130.5349	562584.3785
CC (21001)	615889.2448	562584.0780	
PT (20003)	121+61.1165	616127.9921	562559.5890
Radius:	240.00		
Delta:	11°51'20.6163" Left		
Degree of Curvature (Arc):	23°52'23.6693"		
Length:	49.66		
Tangent:	24.92		
Chord:	49.57		
Middle Ordinate:	1.28		
External:	1.29		
Tangent Direction:	N 84°00'02.8356" W		
Radial Direction:	N 05°59'57.1645" E		
Chord Direction:	N 85°55'43.1439" W		
Radial Direction:	N 05°51'23.4519" W		
Tangent Direction:	S 84°08'36.5481" W		

CIRCULAR CURVE NO. ④			
Element: Circular	STATION	NORTHING	EASTING
PC (20004)	122+61.6674	616117.7321	562459.5629
PI (20005)	123+17.0357	616112.0825	562404.4836
CC (21005)	615968.5151	562474.8685	
PT (20006)	123+67.7496	616072.0017	562366.2844
Radius:	150.00		
Delta:	40°31'13.5179" Left		
Degree of Curvature (Arc):	38°11'49.8709"		
Length:	106.08		
Tangent:	55.37		
Chord:	103.89		
Middle Ordinate:	9.28		
External:	9.89		
Tangent Direction:	S 84°08'36.5481" W		
Radial Direction:	N 05°51'23.4519" W		
Chord Direction:	S 63°52'59.7891" W		
Radial Direction:	N 46°22'36.9700" W		
Tangent Direction:	S 43°37'23.0302" W		



DATE	NO.	REVISIONS	BY
3/19/13	1	ADDRESS COMMENTS FROM PRELIMINARY ENTRANCE REVIEW	KMS
7/11/13	2	ADDRESS COMMENTS FROM SEMI-FINAL ENTRANCE REVIEW	KMS
9/16/13	3	ADDRESS COMMENTS FROM FINAL ENTRANCE REVIEW	KMS

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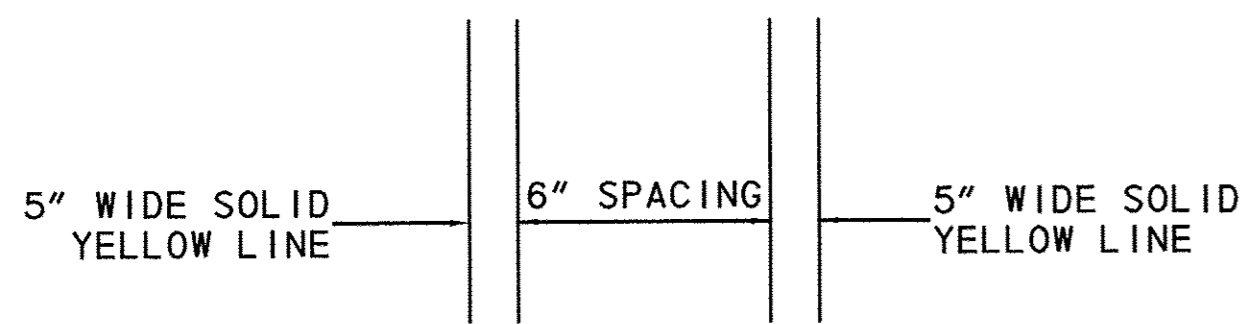
PHILIP H. PENNONI, P.E., P.S., P.L.S.
No. 12129
Professional Engineer
State of Delaware

121 Continental Drive
Suite 207
Newark, Delaware 19719
Tel: (302) 655-4451 Fax: (302) 654-2895

CURTIS MILL PARK
NEWARK, DELAWARE
COMMERCIAL ENTRANCE
GRADING PLAN AND CURVE DATA
CITY OF NEWARK
220 SOUTH MAIN STREET
NEWARK, DE 19711

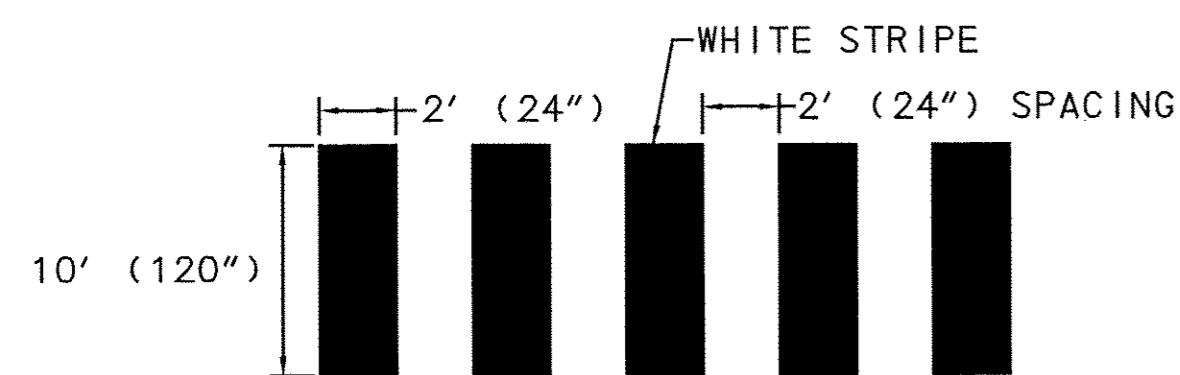
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JOB NO.	CNEW 1207
BLOCK MAP NO.	SHEET
	4 OF 12
SCALE	1"=30'
DRAWING NO.	CS-2503
DRAWN BY	KMS/TJA
DATE	12/14/2012
APPROVED	

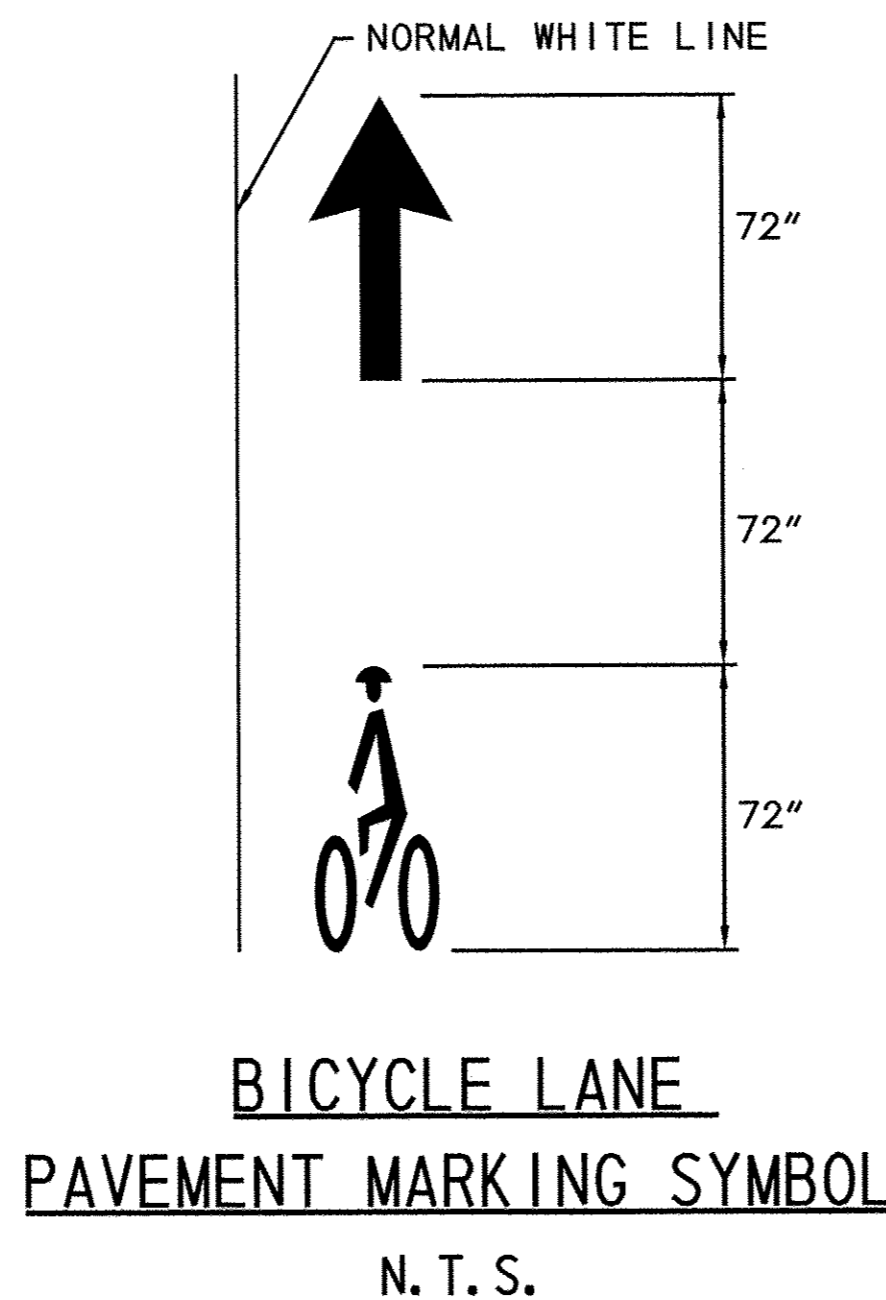


NOTE: STRIPING SHALL BE THERMO

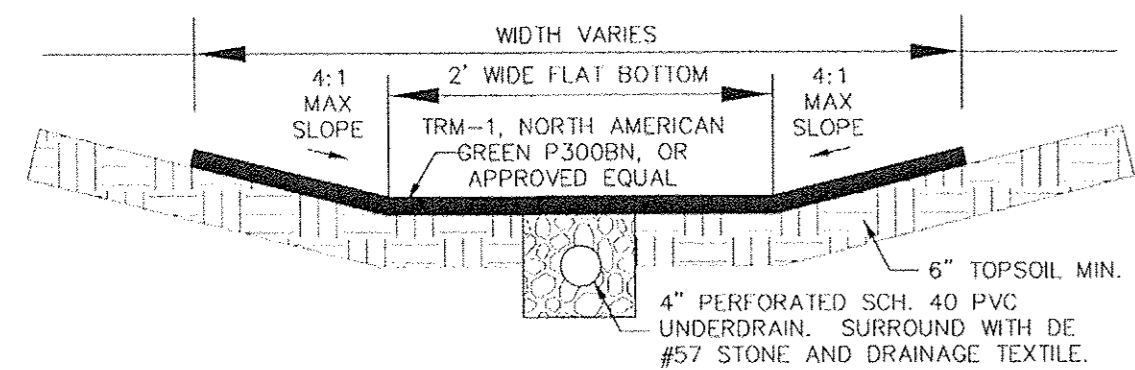
DOUBLE YELLOW LINE STRIPING DETAIL
N. T. S.



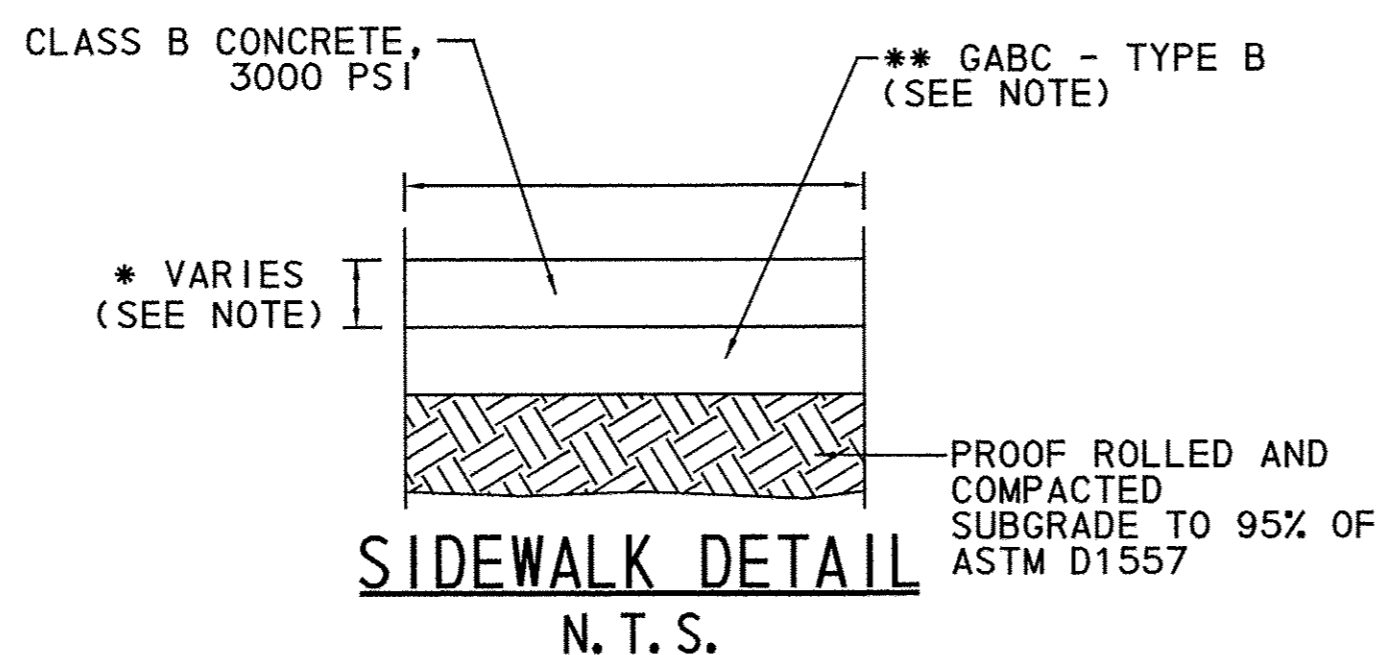
STRIPING OF CROSSWALK SHALL BE THERMO
PEDESTRIAN CROSSWALK DETAIL
N. T. S.



BICYCLE LANE PAVEMENT MARKING SYMBOL
N. T. S.

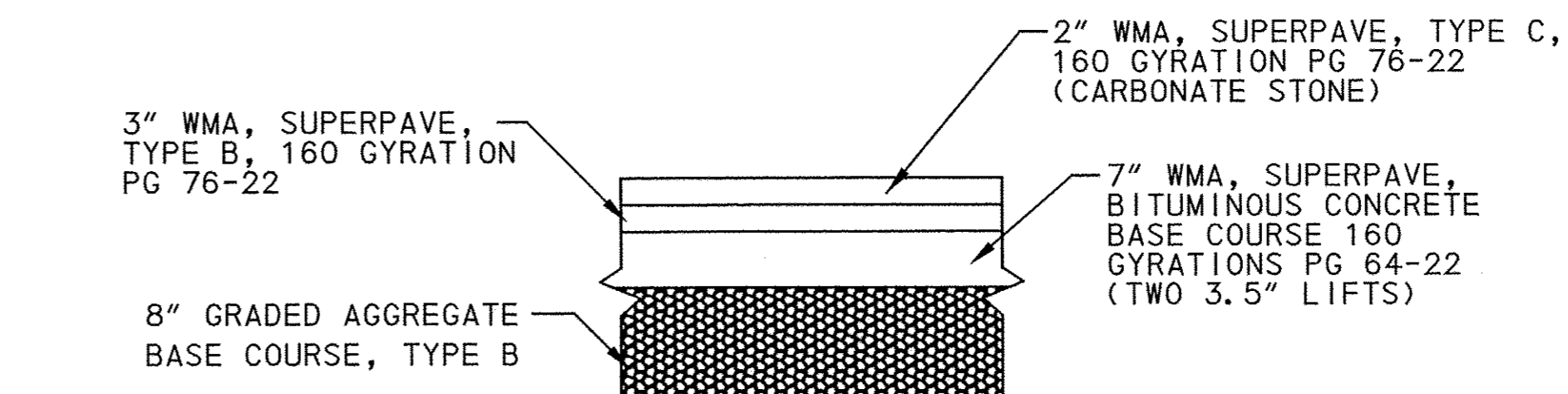


TYPICAL SWALE SECTION
SCALE: N.T.S.

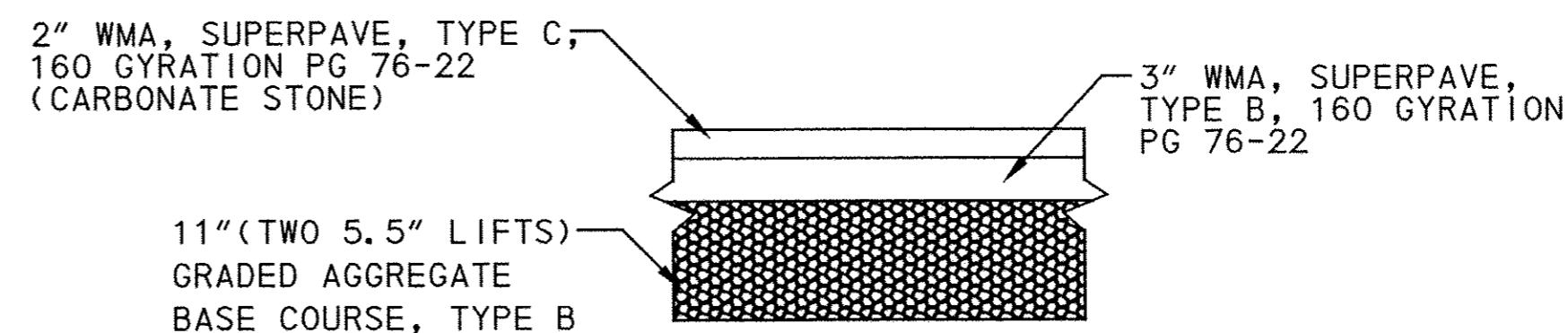


* - STANDARD SIDEWALK SHALL BE 4" THICK. FOR DEPRESSED AND TRANSITION AREA, THE SIDEWALK SHALL BE 6" THICK.
** - STANDARD SIDEWALK OF 4" THICKNESS SHALL BE PLACED OVER 4" GABC TYPE B. SIDEWALK FOR DEPRESSED AND TRANSITION AREAS OF 6" THICKNESS SHALL BE PLACED OVER 6" GABC TYPE B.

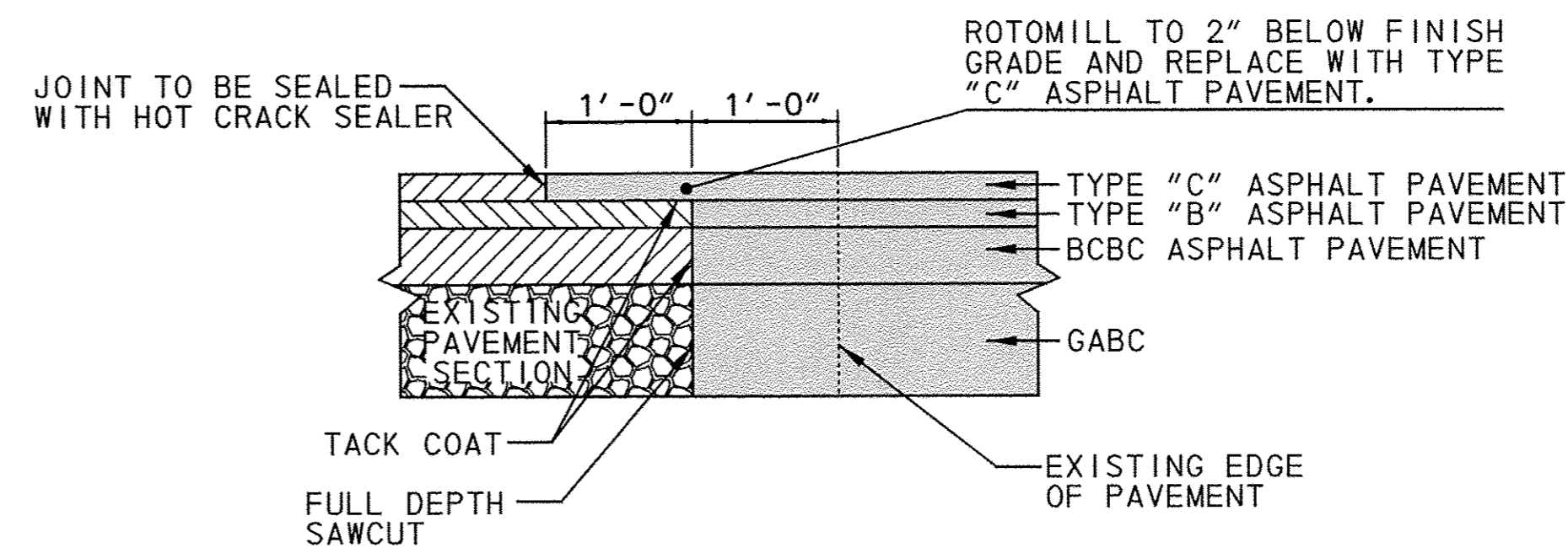
NOTES:
1. MARK IN 5' SQUARES, USE CORK EXPANSION JOINTS AT INTERVALS NOT GREATER THAN 15'.
2. CONCRETE SIDEWALKS SHALL BE CONSTRUCTED AS PER DELDOT SPECIFICATIONS.
3. SIDEWALK TO BE CONSTRUCTED AT GRADE. SLOPE OF SIDEWALK SHALL BE AT A 1.5% SLOPE WITH A 2% MAX/1% MIN IN ORDER TO ASSURE POSITIVE DRAINAGE.



PAVEMENT SECTION WIDENING
N. T. S.

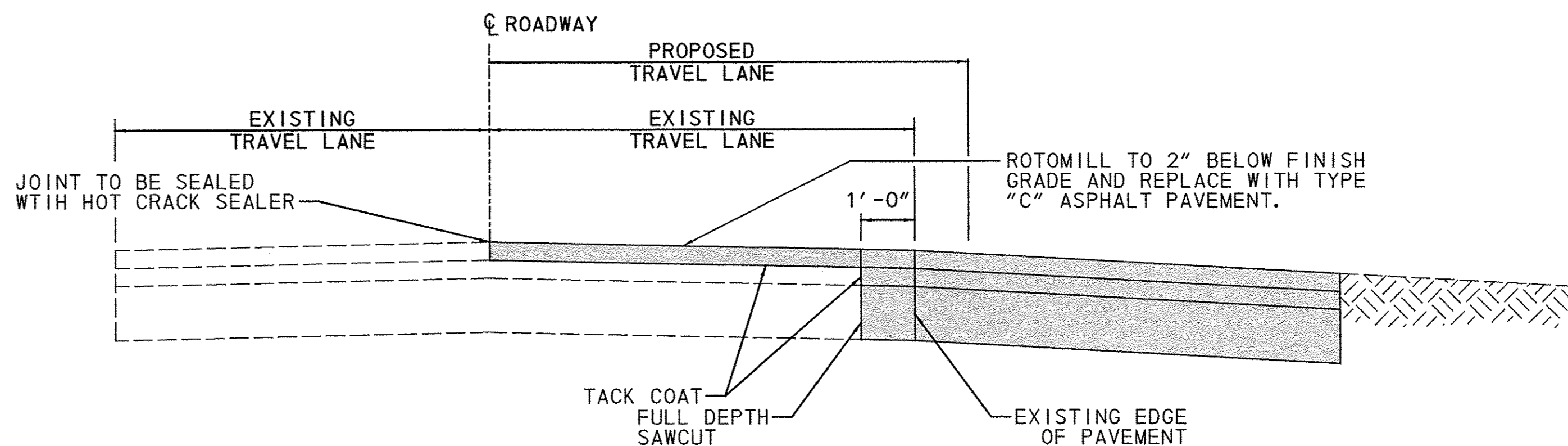


PAVEMENT SECTION ENTRANCE
N. T. S.



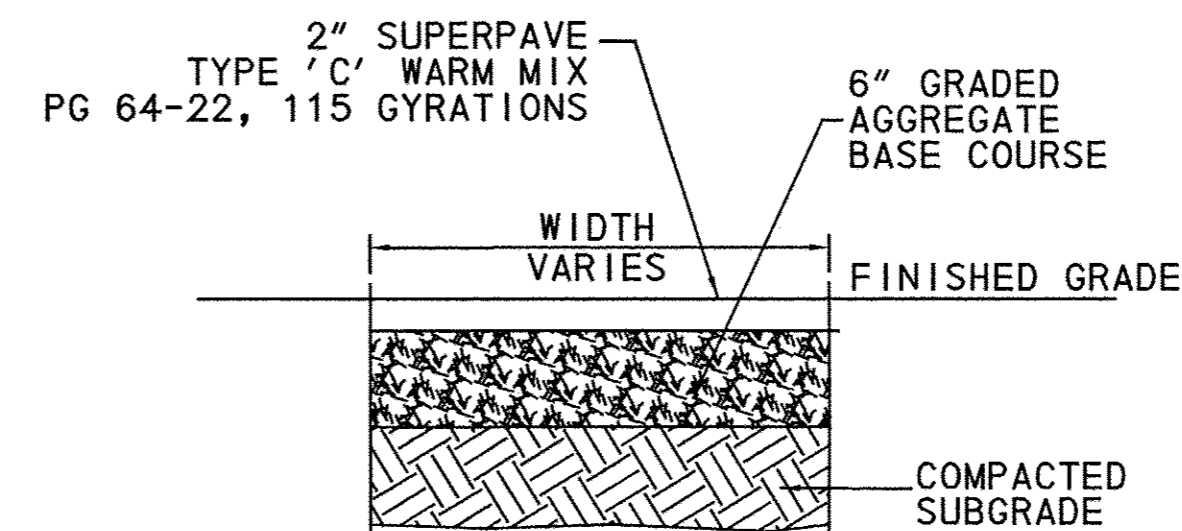
TYPICAL PAVEMENT TIE-IN DETAIL
N. T. S.

NOTE: PAVEMENT SHALL MATCH PROPOSED PAVEMENT SECTION FOR EACH ROADWAY (REFER TO CS-2501)



TYPICAL PAVEMENT WIDENING TIE-IN DETAIL
N. T. S.

NOTE: PAVEMENT SHALL MATCH PROPOSED PAVEMENT SECTION FOR EACH ROADWAY (REFER TO CS-2501)



ON-SITE PATH
N. T. S.

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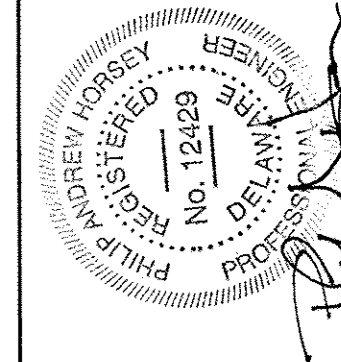
Inc.

Pennoni Associates

Pennoni

DATE	NO.	REVISIONS	BY
3/19/13	1	ADDRESS COMMENTS FROM PRELIMINARY ENTRANCE REVIEW	KMS
7/11/13	2	ADDRESS COMMENTS FROM SEMI-FINAL ENTRANCE REVIEW	KMS
9/16/13	3	ADDRESS COMMENTS FROM FINAL ENTRANCE REVIEW	KMS

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK



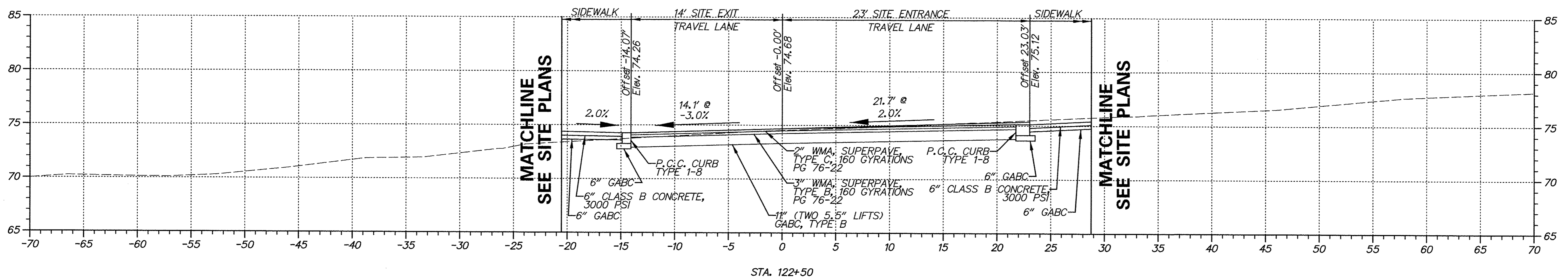
CURTIS MILL PARK
NEWARK, DELAWARE
COMMERCIAL ENTRANCE
ROADWAY DETAILS
CITY OF NEWARK
220 SOUTH MAIN STREET
NEWARK, DE 19711

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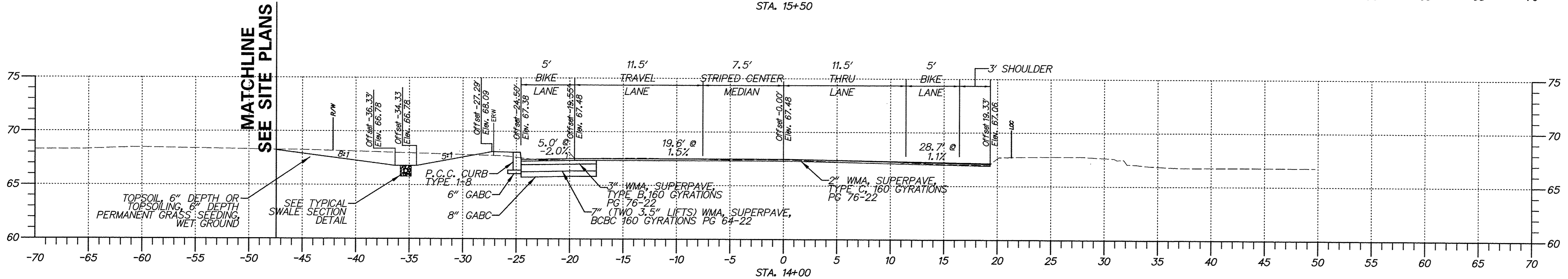
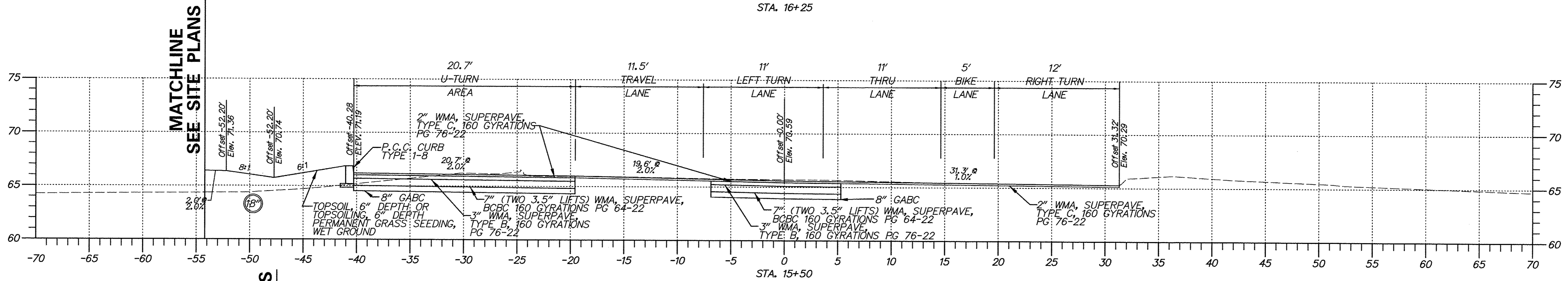
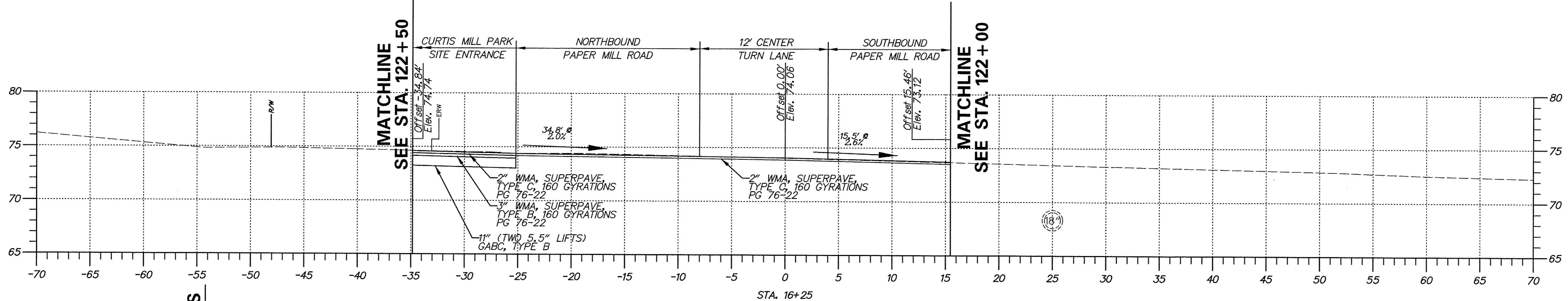
JOB NO.	CNEW 1207
BLOCK MAP NO.	SHEET
	5 OF 12

SCALE	N.T.S.	DRAWING NO.	CS-2504
DRAWN BY	KMS/TJA		
DATE	12/14/2012		
APPROVED			

CURTIS MILL PARK ENTRANCE CROSS SECTION



PAPER MILL ROAD CROSS SECTIONS



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1	3/19/13	ADDRESS COMMENTS FROM PRELIMINARY ENTRANCE REVIEW	KMS
2	7/11/13	ADDRESS COMMENTS FROM SEMI-FINAL ENTRANCE REVIEW	KMS
3	9/16/13	ADDRESS COMMENTS FROM FINAL ENTRANCE REVIEW	KMS

ALL DIMENSIONS MUST BE VERIFIED BY THE FIELD ENGINEER AND NOTED ON ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

PHILIP J. HORSEY, P.E.
Professional Engineer
No. 12429
State of Delaware

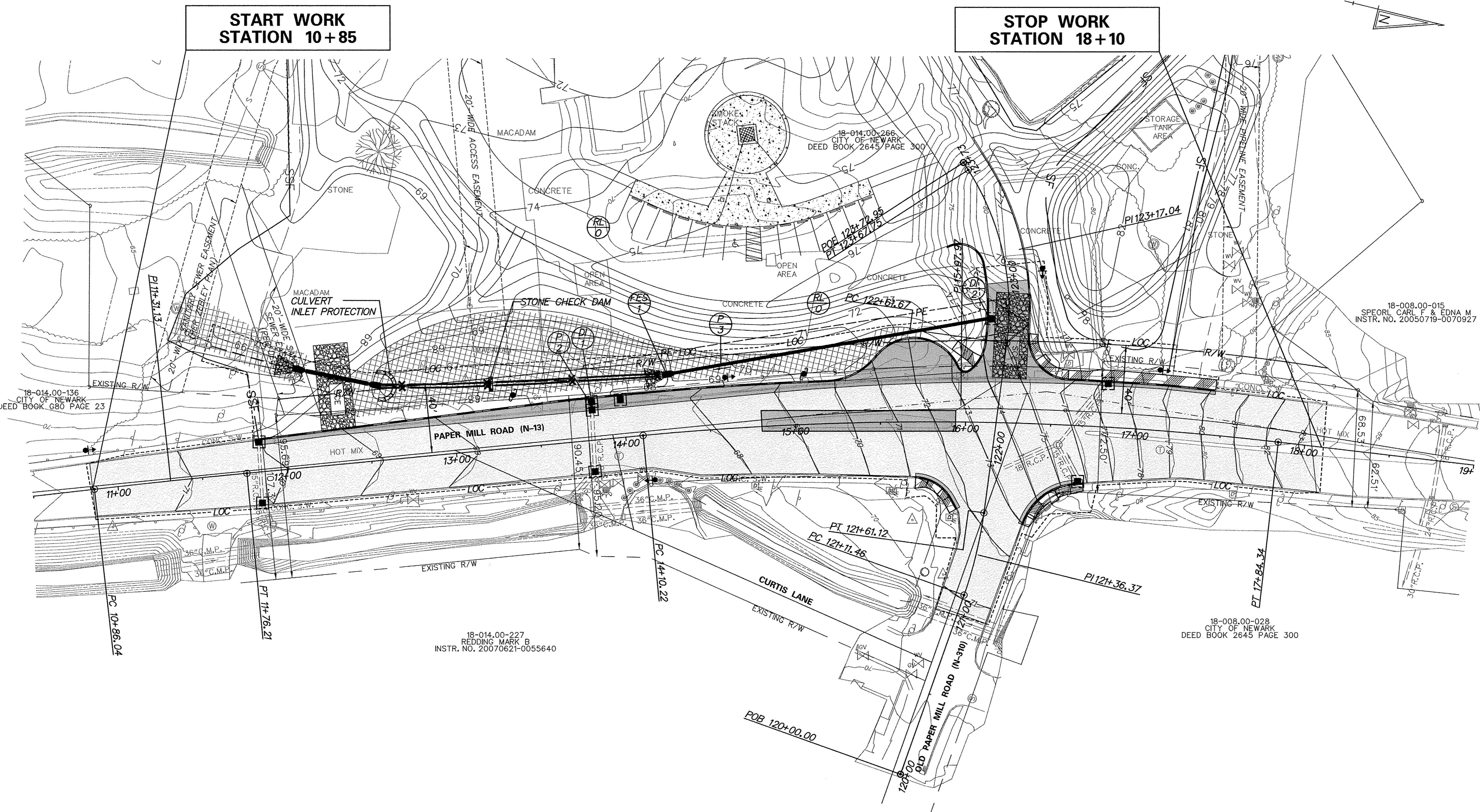
Pennoni Associates Inc. Engineers • Surveyors • Planners • Landscape Architects

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NEWARK, DELAWARE
COMMERCIAL ENTRANCE
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JOB NO.	CNEW 1207
BLOCK MAP NO.	SHEET 6 OF 12

SCALE	1"=5'	DRAWING NO.	CS-2505
DRAWN BY	KMS/TJA		
DATE	12/14/2012		
APPROVED			



- LEGEND**
- SF— SILT FENCE
 - SSF— SUPER SILT FENCE
 - [Hatched Box] STABILIZED CONSTRUCTION ENTRANCE
 - [Stone Wall] STONE CHECK DAM
 - [Rock Pile] ROCK OUTLET PROTECTION
 - [Square Box] INLET SEDIMENT CONTROL
 - [Grid Pattern] STABILIZATION MATTING
 - [Culvert Box] CULVERT INLET PROTECTION

NOTES:

1. EROSION AND SEDIMENT CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH DNREC REGULATIONS.

Pennoni Associates Inc.

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Suite 207
Newark, Delaware 19713
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DATE	NO.	REVISIONS	BY
3/19/13	1	ADDRESS COMMENTS FROM PRELIMINARY ENTRANCE REVIEW	KMS
7/11/13	2	ADDRESS COMMENTS FROM SEMI-FINAL ENTRANCE REVIEW	KMS
9/16/13	3	ADDRESS COMMENTS FROM FINAL ENTRANCE REVIEW	KMS

ALL DIMENSIONS MUST BE VERIFIED BY THE FIELD SURVEYOR PRIOR TO CONSTRUCTION. ANY CHANGES TO THE PLAN MUST BE APPROVED BY THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK.

18-014.00-136
CITY OF NEWARK
DEED BOOK 680 PAGE 23

18-014.00-227
REDDING MARK B
INSTR. NO. 20070621-0055640

18-014.00-266
CITY OF NEWARK
DEED BOOK 2645 PAGE 300

18-008.00-015
SPEORL CARL F & EDNA M
INSTR. NO. 20050719-0070927

18-008.00-028
CITY OF NEWARK
DEED BOOK 2645 PAGE 300

CURTIS MILL PARK
NEWARK, DELAWARE
COMMERCIAL ENTRANCE
EROSION AND SEDIMENT CONTROL PLAN

CITY OF NEWARK
220 SOUTH MAIN STREET
NEWARK, DE 19711

SCALE	DRAWING NO.
1"=30'	CS-2506

BLOCK MAP NO.	SHEET
	7 OF 12

JOB NO.
CNEW 1207

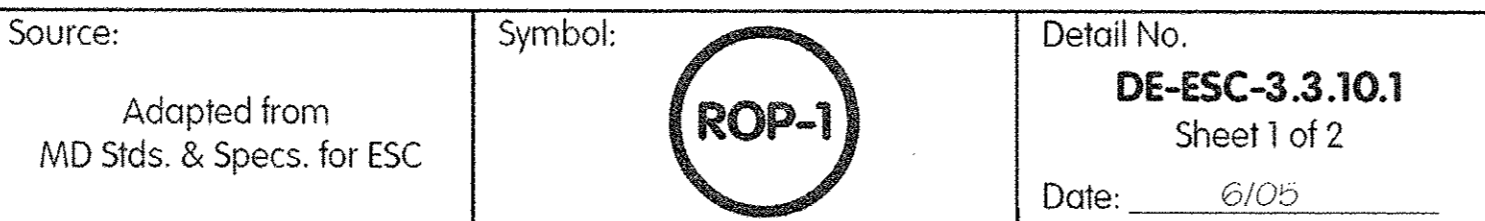
DRAWN BY
KMS/TJA

DATE
12/14/2012

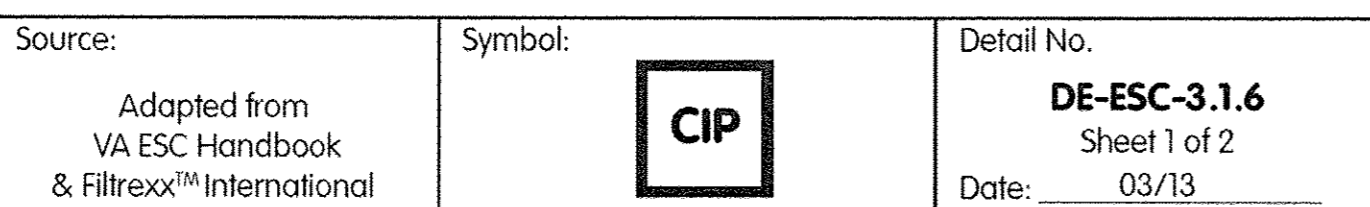
APPROVED



**DELAWARE
EROSION**
CONTROL
HANDBOOK



**DELIVERING
EROSION**
CONTROL
SOLUTIONS
FOR THE
CONCRETE
CONSTRUCTION
INDUSTRY



**DELAWARE
EROSION**
CONTROL
HANDBOOK

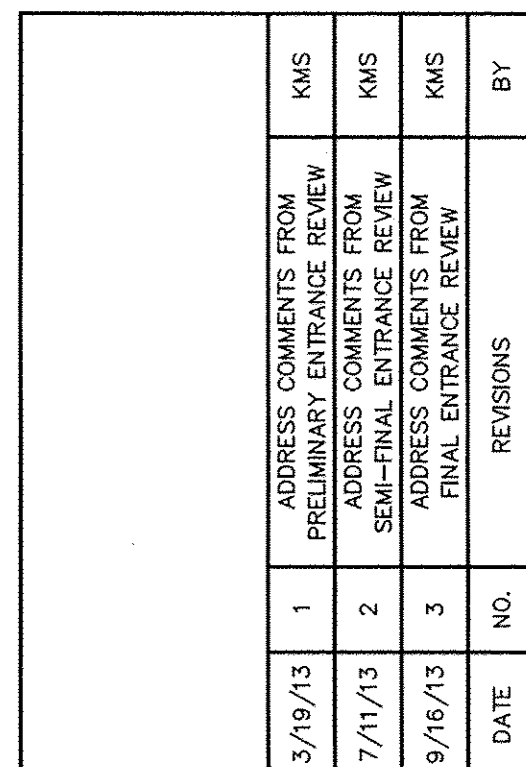
ROCK OUTLET PROTECTION DATA:	
FES-1	FES-3
Do= 18"	Do= 18"
Lq= 10'	Lq= 10'
W= 11.5'	W= 11.5
R No. = 4	R No. = 4
T= 14"	T= 14"



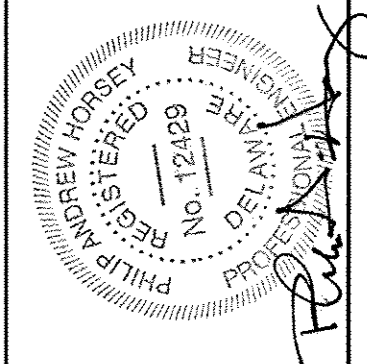
SOIL EROSION
CONTROL
- PREVENTION

Source: Adapted from VA ESC Handbook & Filtrex TM International	Symbol: 	Detail No. DE-ESC-3.1.6 Sheet 2 of 2 Date: 03/13
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Pennoni Associates Inc.



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CURTIS MILL PARK
NEWARK, DELAWARE
**COMMERCIAL ENTRANCE
EROSION AND SEDIMENT CONTROL
DETAIL SHEET**
CITY OF NEWARK
220 SOUTH MAIN STREET
NEWARK, DE 19711

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					JOB NO. CNEW 1207
BLOCK MAP NO.					SHEET 8 OF 12

SCALE 1"=30'	DRAWING NO. <i>CS-2507</i>
DRAWN BY KMS/TJA	
DATE 12/14/2012	
APPROVED	

CS-2507

Notes for Figure 6H-3—Typical Application 3
Work on the Shoulder of a Two-Lane Road
(Delaware Revision)

Guidance:

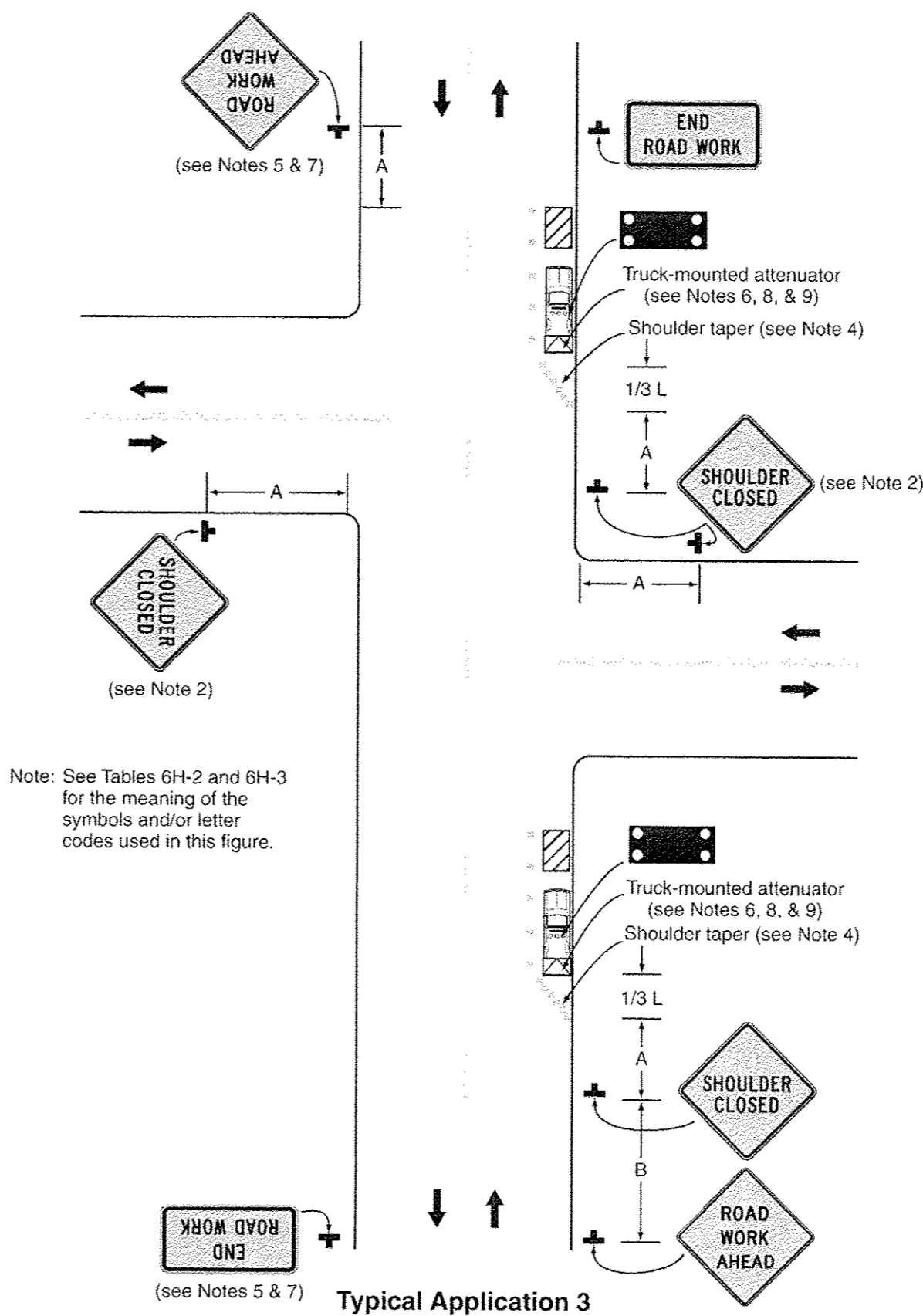
1. A SHOULDER CLOSED sign should be placed on the left side of the roadway for a divided or one-way street only if the left shoulder is affected.
- Option:
2. The SHOULDER CLOSED sign may be omitted from an intersecting roadway where drivers emerging from that roadway will encounter another advance warning sign prior to the activity area.
3. For short duration operations of 60 minutes or less, all signs and channelizing devices may be eliminated if a vehicle with activated high-intensity rotating, flashing, oscillating, or strobe lights is used.

Standard:

4. When paved shoulders having a width of 8 feet or more are closed, at least one advance warning sign shall be used. In addition, channelizing devices shall be used to close the shoulder in advance to delineate the beginning of the work space and direct vehicular traffic to remain within the traveled way.
5. If the shoulder closure is located within a passing zone, ROAD WORK AHEAD and END ROAD WORK signs shall be placed for traffic approaching in the opposite direction.
6. For long-term, intermediate-term, and short-term operations, a truck-mounted attenuator shall be used on roadways with a posted speed limit or 85th-percentile speed greater than 40 mph.
- Option:
7. If the shoulder closure is located within a no-passing zone, ROAD WORK AHEAD and END ROAD WORK signs may be placed for traffic approaching in the opposite direction based on engineering judgment.
8. For short duration operations along roadways with a posted speed limit or 85th-percentile speed greater than 40 mph, a truck-mounted attenuator may be omitted if a vehicle with activated high-intensity rotating, flashing, oscillating, or strobe lights is used or if the shoulder width is less than the width of a truck-mounted attenuator.
9. Truck-mounted attenuators may be used for all operations along roadways with a posted speed limit or 85th-percentile speed less than or equal to 40 mph.

Revision 1, December 2012

Figure 6H-3. Work on the Shoulder of a Two-Lane Road (TA-3)
(Delaware Revision)



Typical Application 3

Revision 1, December 2012

Notes for Figure 6H-10—Typical Application 10
Lane Closure on a Two-Lane Road Using Flaggers
(Delaware Revision)

Option:

1. For low-volume situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger, positioned to be visible to road users approaching from both directions, may be used (see Chapter 6E).
2. The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short-duration operations.
3. A BE PREPARED TO STOP sign may be added to the sign series.

Guidance:

4. The buffer space should be extended so that the two-way traffic taper is placed before a horizontal (or crest vertical) curve to provide adequate sight distance for the flagger and a queue of stopped vehicles.

Standard:

5. At night, flagger stations shall be illuminated, except in emergencies.

Guidance:

6. When used, the BE PREPARED TO STOP sign should be located between the Flagger symbol (or FLAGGER AHEAD) sign and the ONE LANE ROAD sign.
7. Where drivers emerging from an intersecting roadway will not encounter an advance warning sign prior to the work zone, additional signs should be placed on the intersecting road.
8. When a grade crossing exists within or upstream of the transition area and it is anticipated that queues resulting from the lane closure might extend through the grade crossing, the TTC zone should be extended so that the transition area precedes the grade crossing (see Figure 6H-46).
9. When a grade crossing equipped with active warning devices exists within the activity area, provisions should be made for keeping flaggers informed as to the activation status of these warning devices (see Figure 6H-46).
10. When a grade crossing exists within the activity area, drivers operating on the left-hand side of the normal center line should be provided with comparable warning devices as for drivers operating on the right-hand side of the normal center line (see Figure 6H-46).
11. Early coordination with the railroad company or light rail transit agency should occur before work starts (see Figure 6H-46).

Option:

12. A flagger or a uniformed law enforcement officer may be used at the upstream side of the grade crossing to minimize the probability that vehicles are stopped within 50 feet of the grade crossing, measured from both sides of the outside rails (see Figure 6H-46).

Standard:

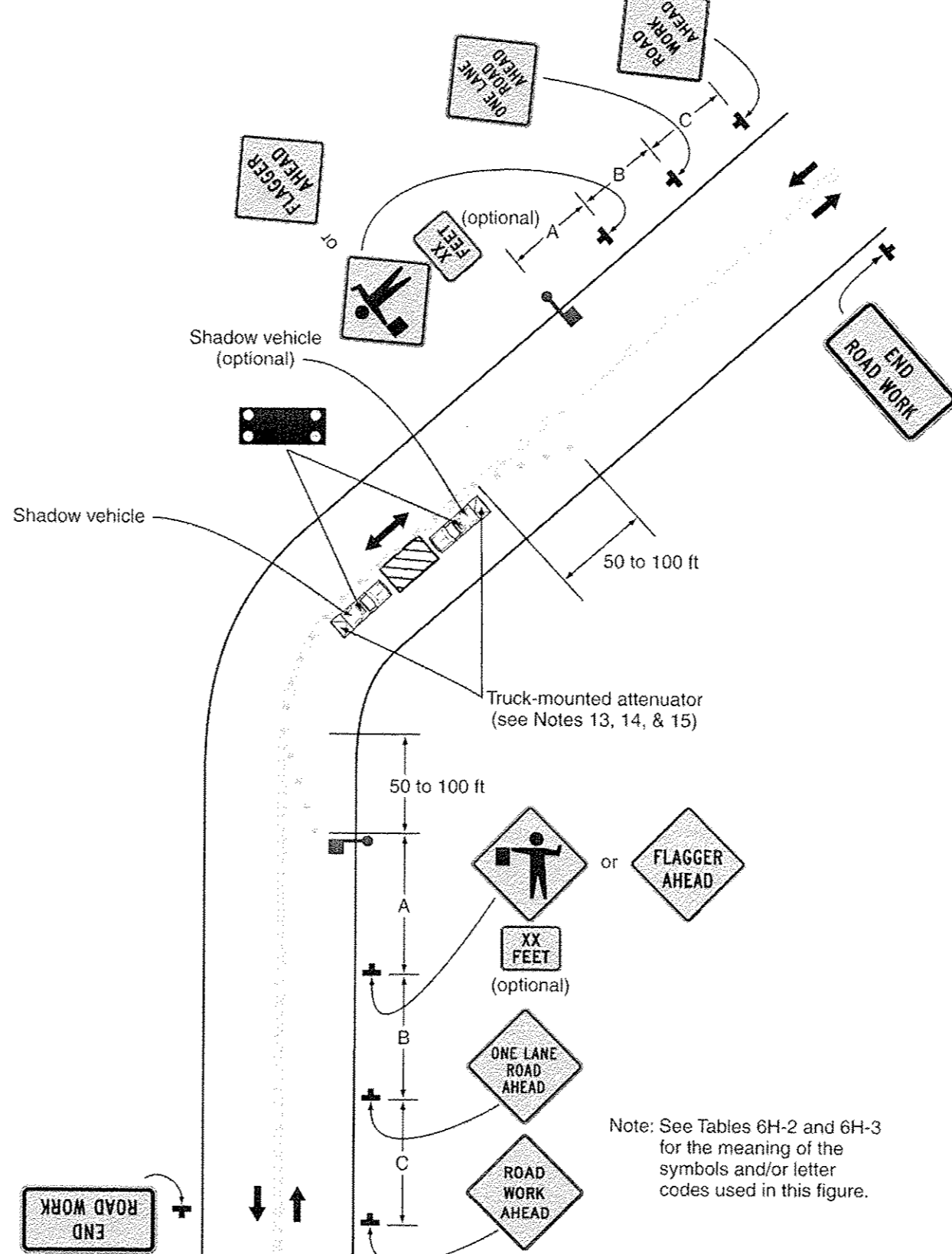
13. For long-term, intermediate-term, and short-term operations, a truck-mounted attenuator shall be used on roadways with a posted speed limit or 85th-percentile speed greater than 40 mph.

Option:

14. For short duration operations along roadways with a posted speed limit or 85th-percentile speed greater than 40 mph, a truck-mounted attenuator may be omitted if a vehicle with activated high-intensity rotating, flashing, oscillating, or strobe lights is used.
15. Truck-mounted attenuators may be used for all operations along roadways with a posted speed limit or 85th-percentile speed less than or equal to 40 mph.

Revision 1, December 2012

Figure 6H-10. Lane Closure on a Two-Lane Road Using Flaggers (TA-10)
(Delaware Revision)



Typical Application 10

Revision 1, December 2012

121 Continental Drive
Suite 207
Newark, Delaware 19719
Tel: (302) 654-2895
Fax: (302) 654-4461

Inc.

Associates

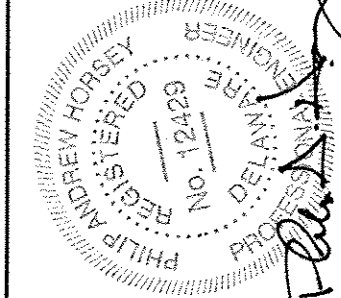
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DATE	NO.	REVISIONS	BY
3/19/13	1	ADDRESS COMMENTS FROM PRELIMINARY ENTRANCE REVIEW	KMS
7/11/13	2	ADDRESS COMMENTS FROM SECOND ENTRANCE REVIEW	KMS
9/16/13	3	ADDRESS COMMENTS FROM FINAL ENTRANCE REVIEW	KMS

ALL DIMENSIONS MUST BE VERIFIED BY THE USER AND NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK



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NEWARK, DELAWARE
COMMERCIAL ENTRANCE
MAINTENANCE OF TRAFFIC
AND DETAIL SHEET
CITY OF NEWARK
220 SOUTH MAIN STREET
NEWARK, DE 19711

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JOB NO.	CNEW 1207
BLOCK MAP NO.	SHEET
	9 OF 12

SCALE	1"=30'	DRAWING NO.	CS-2508
DRAWN BY	KMS/TJA		
DATE	12/14/2012		
APPROVED			

GENERAL M.O.T. NOTES:

1. ALL WORK SHALL BE PERFORMED IN A MANNER THAT WILL REASONABLY PROVIDE THE LEAST PRACTICABLE OBSTRUCTION TO ROAD USERS, INCLUDING VEHICULAR TRAFFIC, BICYCLE TRAFFIC AND PEDESTRIAN TRAFFIC.
2. ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH: THE CONTRACT DOCUMENTS, THE LATEST EDITION OF THE MANUAL TITLED STATE OF DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) (HEREINAFTER REFERRED TO AS THE DELAWARE MUTCD), CURRENT STATE OF DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND SUPPLEMENTAL SPECIFICATIONS, INCLUDING ALL REVISIONS AS OF THE DATE OF THE ENTRANCE PERMIT APPROVAL.
3. THE DEPARTMENT RESERVES THE RIGHT TO STOP THE CONTRACTORS OPERATIONS, IF, IN THE OPINION OF THE DEPARTMENTS REPRESENTATIVE, THE CONTRACTORS OPERATIONS ARE NOT IN COMPLIANCE WITH THE DELAWARE MUTCD, THE SPECIFICATIONS OR THE PLANS OR IF THE CONTRACTORS OPERATIONS ARE DEEMED UNSAFE.
4. IF THE CONTRACTOR DESIRES TO DEViate FROM THE TEMPORARY TRAFFIC CONTROL PLAN (TTCP) PROVIDED IN THE PLAN SET OR DESIRES CHANGES TO THE PHASING OR SCOPE OF THE TTCP, THE CONTRACTOR SHALL SUBMIT A NEW TTCP TO THE DISTRICT SAFETY OFFICER FOR APPROVAL PRIOR TO THE START OF WORK AT EACH AND EVERY LOCATION. THE TTCP SHALL BE PREPARED, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF DELAWARE AND SHALL BE PREPARED IN ACCORDANCE WITH ALL APPLICABLE DELDOT STANDARDS. THE TTCP SHALL BE SUBMITTED 14 CALENDAR DAYS IN ADVANCE OF STARTING WORK.
5. ALL ROADWAY CLOSURES OR LANE CLOSURES BEYOND THOSE SPECIFIED AND APPROVED IN THE PLANS SHALL BE APPROVED BY THE DISTRICT SAFETY OFFICER A MINIMUM OF TWO WEEKS IN ADVANCE OF THE PROPOSED RESTRICTION.
6. TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE MAINTAINED IN GOOD CONDITION IN ACCORDANCE WITH THE BROCHURE ENTITLED QUALITY GUIDELINES FOR TEMPORARY TRAFFIC CONTROL DEVICES, PUBLISHED BY THE AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA). ANY TEMPORARY TRAFFIC CONTROL DEVICES THAT DO NOT MEET THE QUALITY GUIDELINES SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE DEVICES. FAILURE TO COMPLY WILL RESULT IN WORK STOPPAGE.
7. TEMPORARY TRAFFIC CONTROL DEVICES USED ON ALL ROADWAYS OPEN TO THE PUBLIC IN DELAWARE SHALL CONFORM TO THE DELAWARE MUTCD AND SHALL BE IN NEW OR REFURBISHED CONDITION. ALL DEVICES SHALL BE CRASHWORTHY IN ACCORDANCE WITH THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350 AND/OR IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO). THE CONTRACTOR SHALL SUBMIT CERTIFICATION FOR ALL TEMPORARY TRAFFIC CONTROL DEVICES USED SPECIFICALLY ON THIS PROJECT TO THE DISTRICT SAFETY OFFICER AT OR PRIOR TO THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL NOT BEGIN WORK OR PLACE ANY TEMPORARY TRAFFIC CONTROL DEVICES UNTIL THE CERTIFICATION OF DEVICES HAS BEEN APPROVED BY THE DISTRICT SAFETY OFFICER.
8. ANY DEFICIENCIES RELATED TO TEMPORARY TRAFFIC CONTROL THAT ARE REPORTED TO THE CONTRACTOR IN WRITING SHALL BE CORRECTED WITHIN 24 HOURS OR AS DIRECTED BY THE DISTRICT SAFETY OFFICER. CORRECTIVE ACTIONS ON SEVERE DEFICIENCIES SHALL BE TAKEN IMMEDIATELY. FAILURE TO COMPLY WILL RESULT IN THE SUSPENSION OF WORK UNTIL DEVICES ARE BROUGHT BACK INTO COMPLIANCE.
9. ACCESS TO ALL BUSINESSES AND RESIDENCES WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THIS CONTRACT. ANY TEMPORARY CLOSURE OF A DRIVEWAY OR ENTRANCE FOR TIE-IN PURPOSES SHALL BE COORDINATED WITH THE ENGINEER AND THE PROPERTY OWNER IN ADVANCE OF THE CLOSURE.
10. ACCESS TO ALL TRANSIT STOPS LOCATED WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED UNLESS OTHERWISE DIRECTED BY THE PLANS OR THE ENGINEER. MAINTAINING ACCESS TO THE TRANSIT STOP SHALL INCLUDE MAINTAINING AN AREA OF THE TRANSIT VEHICLE TO STOP TO PICK-UP AND DISCHARGE PASSENGERS AND ALSO AN ACCESSIBLE PATH FOR PEDESTRIANS TO SAFELY ACCESS THE TRANSIT STOP.
11. THE CONTRACTOR SHALL PROVIDE ALL PROPERTY OWNERS AND RESIDENTS WHO LIVE ADJACENT TO THE WORK ZONE WITH WRITTEN NOTICE, 48 HOURS IN ADVANCE OF THE START OF CONSTRUCTION WORK. THIS NOTIFICATION SHALL INCLUDE THE SCOPE OF WORK, WORKING HOURS, ANTICIPATED START AND COMPLETION DATES; A SUMMARY OF CONSTRUCTION ACTIVITIES WHICH MAY INTERFERE WITH ACCESS TO THE PROPERTY INCLUDING A SCHEDULE AND ACCESS COORDINATION PLAN, CONTRACTORS NAME AND ADDRESS AND A DELDOT CONTACT PHONE NUMBER. FAILURE TO GIVE PROPER NOTICE WILL RESULT IN A SUSPENSION OF THE WORK REQUIRING NOTICE, UNTIL PROPER NOTICE IS PROVIDED. THE CONTRACTOR SHALL PROVIDE WRITTEN VERIFICATION TO THE ENGINEER THAT THE PROPERTY OWNERS AND RESIDENTS WERE NOTIFIED.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE LOCAL 911 CENTER, LOCAL SCHOOLS AND THE DELDOT PUBLIC INFORMATION CENTER OF ALL ROADS AND LANES TO BE CLOSED A MINIMUM OF SEVEN CALENDAR DAYS BEFORE THE CLOSURE.
13. THE CONTRACTOR SHALL NOTIFY THE LOCAL 911 CENTER IF ACCESS TO A FIRE HYDRANT IS TEMPORARILY RESTRICTED.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE TRANSPORTATION MANAGEMENT CENTER IS NOTIFIED EACH AND EVERY DAY WHEN WORK IS BEING PERFORMED IN STATE RIGHT-OF-WAY. THE CONTRACTOR SHALL IDENTIFY THE TYPE OF WORK, ANY LANE(S) OR SHOULDERS CLOSED, THE LENGTH OF TIME FOR WORK, WHEN THE LANE RESTRICTIONS ARE IN PLACE AND WHEN LANE RESTRICTIONS ARE LIFTED, CONTACT PERSON/PHONE NUMBER AND STATE INSPECTOR. THE TRANSPORTATION MANAGEMENT CENTER CAN BE REACHED AT (302) 659-4600.
15. AT THE END OF EACH WORKDAY, THE CONTRACTOR SHALL CORRECT ALL VERTICAL DIFFERENCES IN ACCORDANCE WITH TABLE 6G-1 OF THE DELAWARE MUTCD.
16. AT THE END OF EACH DAYS OPERATION AND BEFORE TRAFFIC IS RETURNED TO UNRESTRICTED ROADWAY USE, TEMPORARY PAVEMENT MARKINGS SHALL BE APPLIED IN ACCORDANCE WITH THE DELAWARE MUTCD AND DELDOTS TEMPORARY PAVEMENT MARKINGS POLICY.
17. WHEN SIDE ROADS INTERSECT THE WORK ZONE, ADDITIONAL TRAFFIC CONTROL DEVICES SHALL BE ERECTED INCLUDING PERMANENT WARNING SIGNS.
18. ALL STORAGE OF EQUIPMENT AND MATERIAL SHALL COMPLY WITH SECTION 6G.22 OF THE DELAWARE MUTCD.
19. ALL FLAGGERS SHALL COMPLY WITH CHAPTER 6E OF THE DELAWARE MUTCD.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS/HER WORK WITH OTHER CONTRACTORS IN THE AREA.
21. ALL PERSONS WORKING WITHIN THE STATE RIGHT-OF-WAY SHALL WEAR A MINIMUM OF AN ANSICLASS II SAFETY VEST MEETING OR EXCEEDING THE ANSI107-2004 REQUIREMENTS, AS SPECIFIED IN THE DELAWARE MUTCD.

GENERAL M.O.T. NOTES (CONTINUED):

22. ALL PAVEMENT MARKINGS THAT ARE NO LONGER IN USE AND CONFLICT WITH TEMPORARY PAVEMENT MARKINGS SHALL BE REMOVED AND COMPLETELY OBLITERATED BY A METHOD APPROVED BY THE ENGINEER. PAINTING OVER THE CONFLICTING PAVEMENT MARKINGS WILL NOT BE ACCEPTED AS A METHOD OF REMOVAL.
23. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF EXISTING PAVEMENT WITHIN THE PROJECT LIMITS FOR THE DURATION OF THE CONTRACT OR AS DIRECTED BY THE ENGINEER.
24. ALL ROADWAYS AND ENTRANCES NOT OPEN TO TRAFFIC SHALL BE CLOSED USING TYPE III BARRICADES AND SHALL BE INSTALLED PER THE DELAWARE MUTCD. IF THE ROADWAY OR ENTRANCE IS CLOSED FOR MORE THAN ONE MONTH, THE CONTRACTOR SHALL ERECT PERMANENT BARRICADES AS DIRECTED IN PART 3 OF THE DELAWARE MUTCD.
25. WITHIN THE MAINLINE WORK AREA, PERMANENT ADVANCE WARNING SIGNS WITH THE LEGENDS ROAD WORK 1500 FT, ROAD WORK 1000 FT AND ROAD WORK 500 FT SHALL BE INSTALLED IN ADVANCE OF THE WORK AREA IN BOTH DIRECTIONS. AN END ROAD WORK SIGN SHALL BE LOCATED 500 FEET DOWNSTREAM FROM THE WORK AREA. ON INTERSECTING ROADWAYS WITHIN THE PROJECT LIMITS, A ROAD WORK AHEAD SIGN SHALL BE PLACED AT A DISTANCE NOT LESS THAN 500 FEET IN ADVANCE OF THE WORK AREA AND AN END ROAD WORK SIGN SHALL BE LOCATED 500 FEET DOWNSTREAM OF THE WORK AREA. ALL PERMANENT ADVANCE WARNING SIGNS SHALL BE GROUND MOUNTED ON TWO NCHRP-350 OR MASH APPROVED BREAKAWAY POSTS AND SHALL BE MOUNTED IN COMPLIANCE WITH THE DELAWARE MUTCD. PERMANENT ADVANCE WARNING SIGNS SHALL BE MOUNTED AT A HEIGHT OF 7 FEET, MEASURED FROM THE ROADWAY TO THE BOTTOM OF THE SIGN. THE USE OF SKID MOUNTED SIGN SUPPORTS IS NOT ALLOWED UNLESS THE CONTRACTOR CAN DEMONSTRATE THAT A UTILITY CONFLICT EXISTS, WHICH SHALL BE VERIFIED BY THE ENGINEER; OR CONCRETE MEDIANS PREVENT THE INSTALLATION OF THE PERMANENT ADVANCE WARNING SIGNS IN THE APPROPRIATE LOCATION.
26. TYPICAL APPLICATIONS PER THE DELAWARE MUTCD SHALL BE INCORPORATED TO ACHIEVE REQUIRED TEMPORARY TRAFFIC CONTROL AND SAFETY REQUIREMENTS. THIS PROJECT IS SUBJECT TO THE FOLLOWING TYPICAL APPLICATIONS UNLESS DIRECTED OTHERWISE BY THE DELDOT DISTRICT SAFETY OFFICER: TYPICAL APPLICATION 3 AND 10.

SEQUENCE OF CONSTRUCTION:

PHASE 1:

1. INSTALL TEMPORARY SIGNING AND TRAFFIC CONTROL DEVICES FOR PHASE 1, IN ACCORDANCE WITH THE DE MUTCD, TA-3 WORK ON THE SHOULDER OF A TWO-LANE ROAD.
2. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AND INSTALL TEMPORARY EROSION AND SEDIMENT CONTROLS AS SHOWN ON THE PLAN.
3. EXISTING DELDOT DRAINAGE THAT WILL BE IMPACTED BY THE PROPOSED IMPROVEMENTS SHOULD BE MODIFIED PRIOR TO OTHER PROPOSED ACTIVITIES, SO AS TO MAINTAIN A CLEAN WATER DIVERSION THROUGH THE PROJECT AREA.
4. REMOVE EXISTING CURB ALONG WEST SIDE OF PAPER MILL ROAD.
5. CONSTRUCT PROPOSED CURB AND SIDEWALK ALONG WEST SIDE OF PAPER MILL ROAD.

PHASE 2:

1. INSTALL TEMPORARY SIGNING AND TRAFFIC CONTROL DEVICES FOR PHASE 2 IN ACCORDANCE WITH THE DE MUTCD. UTILIZE FLAGGING OPERATION DURING WORK IN THE MEDIAN OF PAPER MILL ROAD. ALL FLAGGING OPERATIONS SHALL COMPLY WITH SECTION 6E OF THE DELAWARE MUTCD.
2. REMOVE AND PATCH AREA OF THE EXISTING MEDIAN ALONG PAPER MILL ROAD ON THE SOUTH SIDE OF THE INTERSECTION WITH OLD PAPER MILL ROAD.
3. REMOVE AND REPLACE CURB RAMPS ON THE EAST SIDE OF PAPER MILL ROAD AT THE INTERSECTION WITH OLD PAPER MILL ROAD.

PHASE 3:

1. INSTALL TEMPORARY SIGNING AND TRAFFIC CONTROL DEVICES FOR PHASE 3, IN ACCORDANCE WITH THE DE MUTCD, TA-10 LANE CLOSURE ON A TWO-LANE ROAD USING FLAGGERS.
2. MILL AND OVERLAY WITH TYPE C WMA AS SHOWN ON SHEET 2 "CONSTRUCTION PLAN".
3. INSTALL PROPOSED SIGNING AND STRIPING AS SHOWN ON SHEET 11 "SIGNING AND STRIPING PLAN".

PEDESTRIAN MOT NOTES:

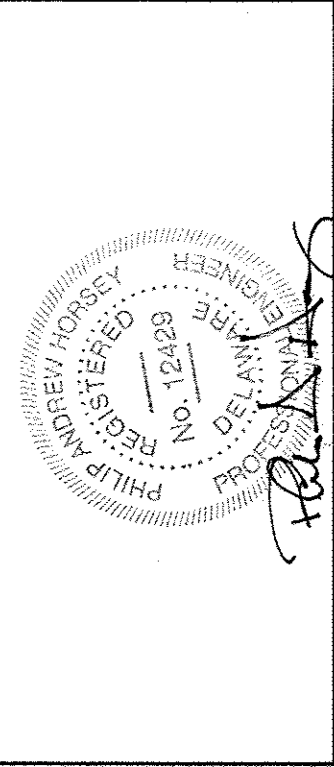
1. DURING CONSTRUCTION THE CONTRACTOR SHALL COORDINATE UPCOMING PEDESTRIAN IMPACTS WITH DELDOT SAFETY AT LEAST TWO (2) WEEKS IN ADVANCE OF THE CONSTRUCTION ACTIVITY.
2. PEDESTRIANS SHALL BE MAINTAINED ALONG THE WEST SIDE OF PAPER MILL ROAD USING THE NEW SIDEWALK BEING CONSTRUCTED THROUGH THE SITE WHICH IS TO BE TIED INTO THE EXISTING SIDEWALK TO THE NORTH AND SOUTH OF THE SITE.
3. A CROSSWALK SHALL BE MAINTAINED FROM THE PROPOSED SITE ENTRANCE ON THE WEST SIDE OF PAPER MILL ROAD TO THE NORTH EAST CORNER OF PAPER MILL ROAD AND OLD PAPER MILL ROAD FOR THE DURATION OF CONSTRUCTION.
4. MAINTAIN PEDESTRIANS WITH TEMPORARY PEDESTRIAN PATHS OR WITH A FLAGGING ASSISTANCE OPERATION DURING WORK HOURS AS NEEDED. SIDEWALK AND CURB RAMPS SHALL BE RETURNED TO A PASSABLE CONDITION AT THE END OF EACH WORK NIGHT. IF TEMPORARY PEDESTRIAN PATHS ARE TO BE USED THE CONTRACTOR SHALL COORDINATE WITH DELDOT SAFETY AT LEAST (2) WEEKS IN ADVANCE FOR APPROVAL.

5. ACCEPTABLE MATERIALS FOR TEMPORARY PEDESTRIAN PATHS SHALL INCLUDE CONCRETE, HOT-MIX, COMPACTED MILLINGS OR PLYWOOD WALKWAY STRUCTURE. PLYWOOD WALKWAY STRUCTURES SHALL ALSO INCLUDE DETECTABLE EDGING AND RAILINGS IN ACCORDANCE WITH ADA GUIDELINES AND THE DELAWARE MUTCD. STONE OR GRADED AGGREGATE BASE COURSE SHALL NOT BE USED FOR TEMPORARY PEDESTRIAN PATHS.



	ADDRESS COMMENTS FROM PREVIOUS REVIEW	KMS	ADDRESS COMMENTS FROM PREVIOUS REVIEW	KMS	ADDRESS COMMENTS FROM PREVIOUS REVIEW	KMS	BY
3/19/13	1		7/11/13	2			
			9/16/13	3			
DATE	NO.		REVISIONS				

ALL DIMENSIONS MUST BE VERIFIED BY THE CONTRACTOR AND NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK



CURTIS MILL PARK
NEWARK, DELAWARE
COMMERCIAL ENTRANCE
MAINTENANCE OF TRAFFIC
AND DETAIL SHEET
CITY OF NEWARK
220 SOUTH MAIN STREET
NEWARK, DE 19711

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	JOB NO.
	CNEW 1207
BLOCK MAP NO.	SHEET
	10 OF 12

SCALE 1"=30'	DRAWING NO. CS-2509
DRAWN BY KMS/TJA	
DATE 12/14/2012	
APPROVED	

Engineers • Surveyors • Planners • Landscape Architects

Inc.

Associates

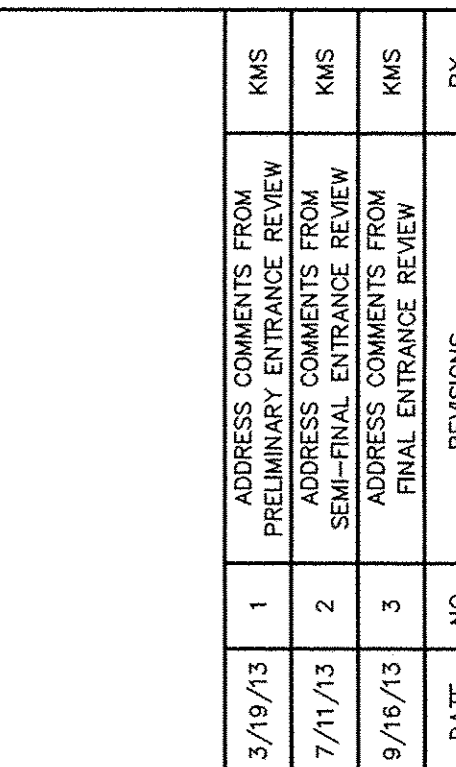
Pennoni

121 Continental Drive
Suite 207
Newark, Delaware 19713
Tel: (302) 655-1401 Fax: (302) 654-2885

①	REMOVE EXISTING SIGN
②	EXISTING SIGN TO REMAIN
③	PLACE NEW SIGN
④	RENEW EXISTING SIGN
⑤	REPOSITION EXISTING SIGN



Pennoni Associates Inc.

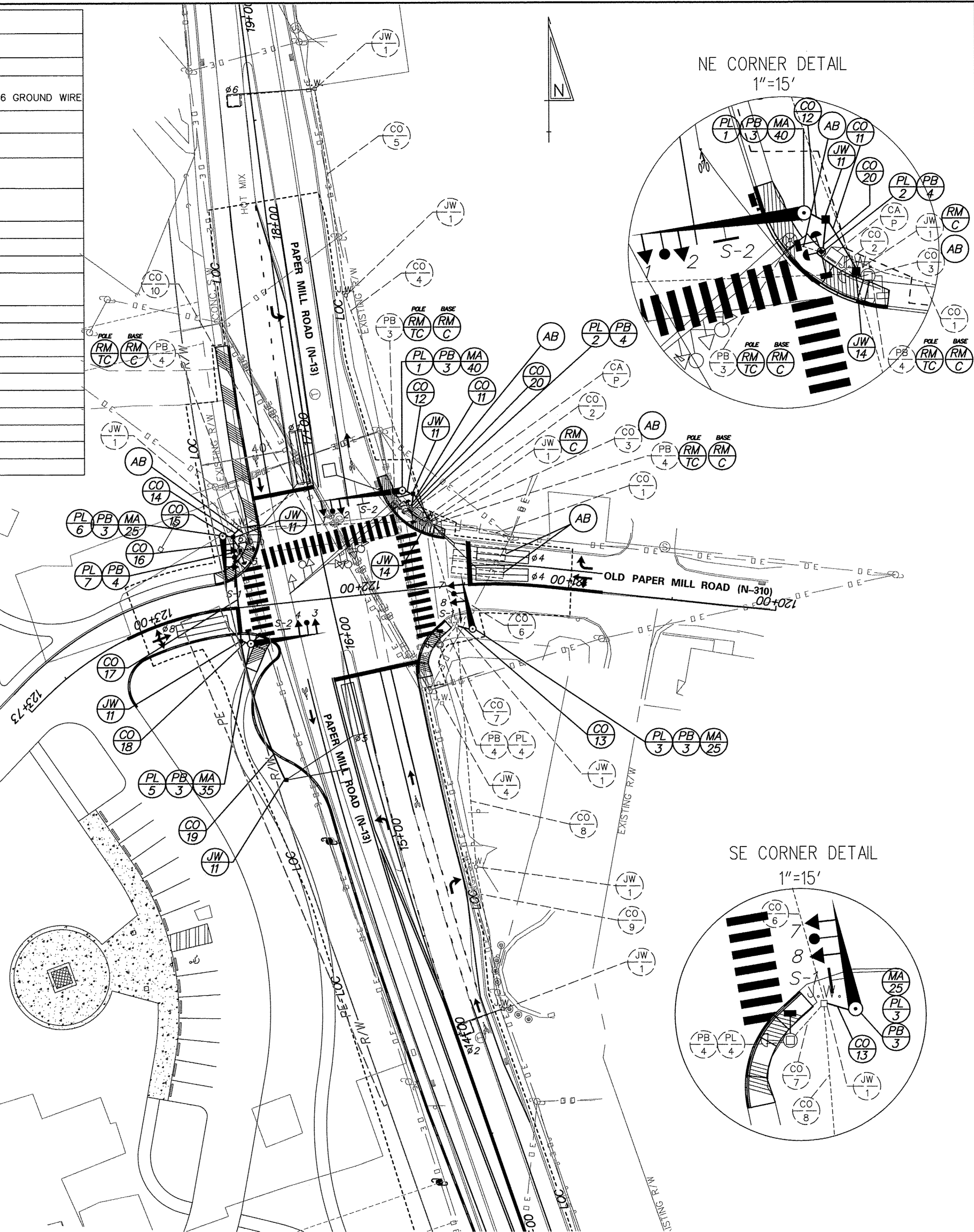
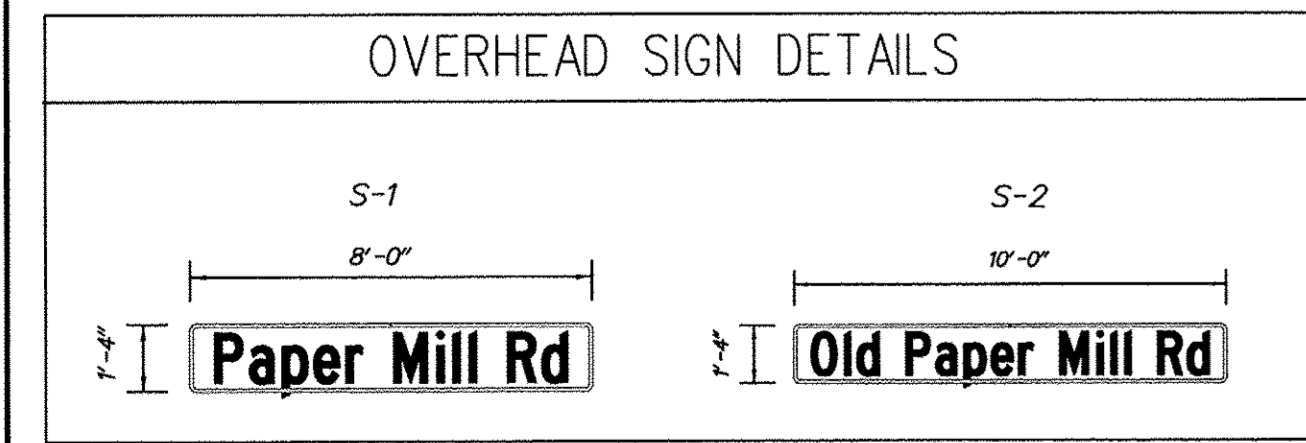
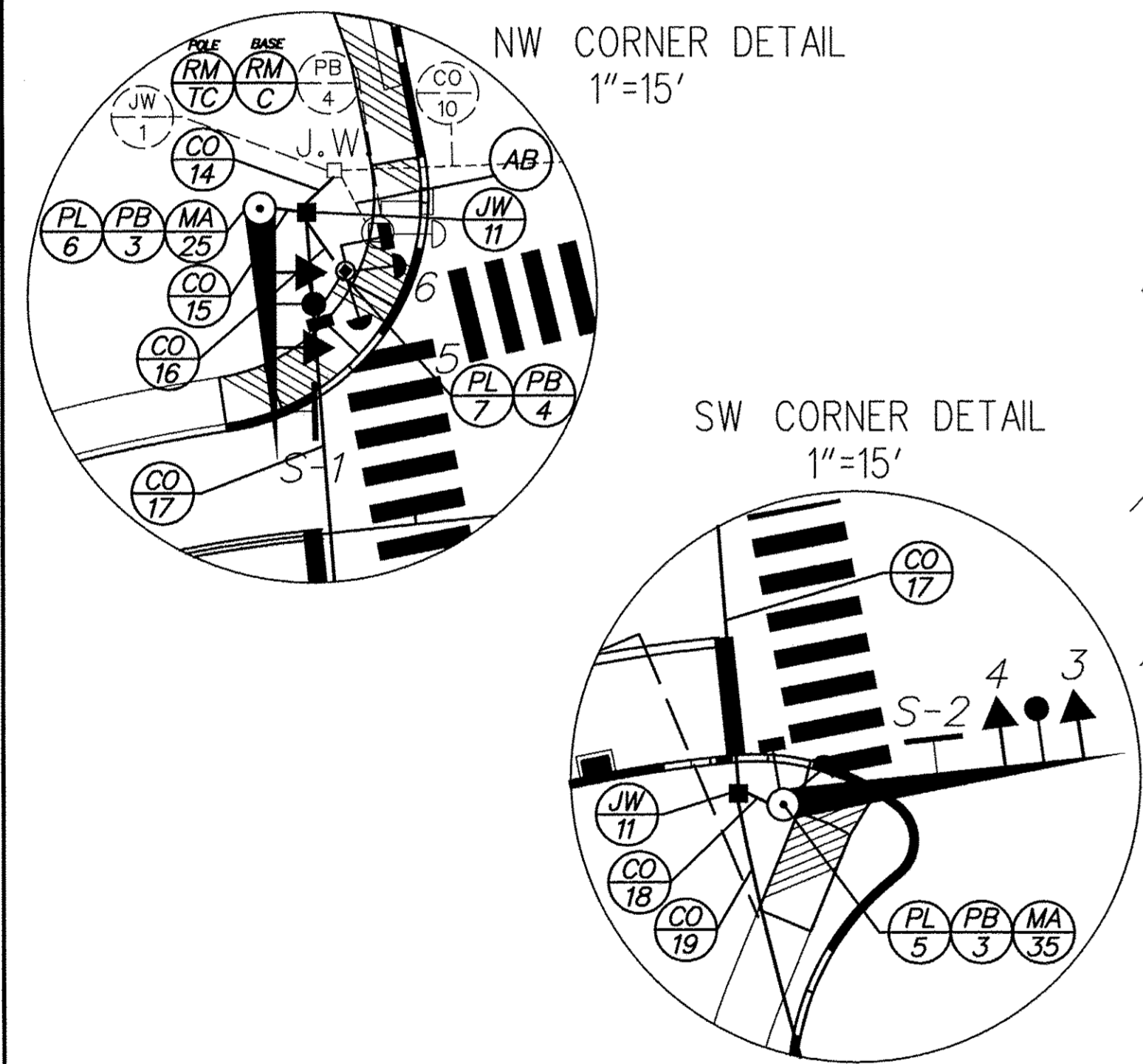


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SCALE 1"=30'	DRAWING NO.
DRAWN BY KMS/TJA	<i>CS-2510</i>
DATE 12/14/2012	
APPROVED	

CONDUIT RUN SCHEDULE					
CR#	* OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE/ WIRE
*1	1	1.5 IN	43'		2/*8 U.F.W/GROUND
*2	1	2.5 IN	5'		COMM CABLE, REM (3) *18/4, REM (4) *14/9, INSTALL (4) *14/9, INSTALL (4) *18/4, INSTALL (6) *14/2, INSTALL (6) *14/5, INSTALL *6 GROUND WIRE
*3	1	2.5 IN	3'		ABANDON
*4	1	2.5 IN	115'		COMM CABLE, REM (1) *18/4, INSTALL (1) *14/2, INSTALL *6 GROUND WIRE
*5	1	2.5 IN	100'		COMM CABLE, REM (1) *18/4, INSTALL (1) *14/2, INSTALL *6 GROUND WIRE
*6	1	2.5 IN	53'		REM (1) *18/4, REM (1) *14/9, INSTALL (1) *14/9, INSTALL (1) *14/5, INSTALL (1) *18/4, INSTALL (1) *14/2, INSTALL *6 GROUND WIRE
*7	1	2.5 IN	12'		REM (1) *14/9, INSTALL (1) *14/5, INSTALL *6 GROUND WIRE
*8	1	2.5 IN	116'		REM (1) *18/4, INSTALL (1) *14/2, INSTALL *6 GROUND WIRE
*9	1	2.5 IN	70'		REM (1) *18/4, INSTALL (1) *14/2, INSTALL *6 GROUND WIRE
*10	1	4.0 IN	91'		REM (1) *14/9, REM (1) *18/4, INSTALL (2) *14/9, INSTALL (3) *14/5, INSTALL (2) *18/4, INSTALL (4) *14/2, INSTALL *6 GROUND WIRE
11	1	3.0 IN	15'	T	(1) *18/4, (1) *14/9, (2) *14/5, (1) *14/2, *6 GROUND WIRE
12	1	3.0 IN	6'	T	(1) *18/4, (1) *14/9, *6 GROUND WIRE
13	1	3.0 IN	8'	T	(1) *18/4, (1) *14/9, *6 GROUND WIRE
14	1	4.0 IN	6'	T	(2) *18/4, (2) *14/9, (3) *14/5, (3) *14/2, *6 GROUND WIRE
15	1	3.0 IN	5'	T	(1) *14/9, (1) *18/4, *6 GROUND WIRE
16	1	2.5 IN	8'	T	(2) *14/5, *6 GROUND WIRE
17	1	4.0 IN	50'	T	(1) *14/9, (1) *14/5, (1) *18/4, (3) *14/2, *6 GROUND WIRE
18	1	3.0 IN	5'	T	(1) *14/9, (1) *14/5, (1) *18/4, *6 GROUND WIRE
19	1	4.0 IN	71'	T	(2) *14/2, *6 GROUND WIRE
20	1	2.5 IN	8'	T	(2) *14/5, *6 GROUND WIRE

* DENOTES EXISTING CONDUIT B = BORE, T = TRENCH, O = OPENCUT
ALL PROPOSED CONDUIT SHALL BE SCHEDULE 80 PVC UNLESS NOTED OTHERWISE



SIGNAL PHASING			
PHASING NOTES 1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY. 2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.			
SIGNAL HEAD DIAGRAM			
2, 4, 5, 6, 7, 8	1, 3		
LEGEND			
	ABANDON		EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)		PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)		EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)		PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)		EXISTING POLE IDENTIFIER (* OF POLE)
	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)		PROPOSED POLE IDENTIFIER (* OF POLE)
	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)		REMOVE BY CONTRACTOR
	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)		REMOVE BY OTHERS
	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)		REMOVE BY TRAFFIC CONTRACTOR
		EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL		J.W.	■
LOOP DETECTOR, TYPE 1		[]	[]
LOOP DETECTOR, TYPE 2		[]	[]
LUMINAIRE		—◇—	—◇—
MAST ARM		—◇—	—◇—
MICROWAVE DETECTION		—◇—	—◇—
OPTICOM RECEIVER		—◇—	—◇—
OVERHEAD SIGNING		—◇—	—◇—
PEDESTRIAN POLE/BASE		—◇—	—◇—
PEDESTRIAN PUSHBUTTON		—◇—	—◇—
PEDESTRIAN SIGNAL HEAD		—◇—	—◇—
RIGHT-OF-WAY		— — — —	— R/W —
SERVICE PEDESTAL		—◇—	[]
SIGNAL CABINET		—◇—	[]
SIGNAL HEAD		—◇—	—◇—
SIGNAL POLE/BASE		—◇—	—◇—
SPAN INSULATOR		—◇—	—◇—
SPAN WIRE		—◇—	—◇—
UTILITY POLE		—◇—	—◇—
VIDEO DETECTION		—◇—	—◇—
GENERAL SIGNAL NOTES			
1. DETECTION - 25 M.P.H. - 4 SECONDS PASSAGE TIME AT 150 FEET FROM STOP BAR.			
2. LOOP DETECTORS: TYPE #1 - 6' x 6' - TO BE INSTALLED ON MAIN STREET THROUGH MOVEMENTS. TYPE #2 - 6' x 25' - TO BE INSTALLED ON MAIN STREET LEFT TURN MOVEMENTS. TYPE #2 - 6' x 25' - TO BE INSTALLED ON SIDE STREET THROUGH AND LEFT TURN MOVEMENTS.			
3. ALL SIGNAL POLES WILL BE XX FEET, EXCEPT WHERE SHOWN.			
4. CO #1 IS NOT DRAWN TO SCALE, NOR IS THE DIRECTION NECESSARILY CORRECT.			
5. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.			
6. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.			
7. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS, SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.			
8. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.			
RECOMMENDED <u>Anan Deep</u> DATE: <u>9.26.2013</u>		RECOMMENDED _____ DATE: _____	RECOMMENDED _____ DATE: _____
APPROVED TRAFFIC ENGINEER _____ DATE: _____		APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER _____ DATE: _____	
CONTRACT N/A		PERMIT NO. N603T	
COUNTY NEW CASTLE		DESIGNED BY: TLM	
		CHECKED BY: AB	
SIGNAL PLAN PAPER MILL ROAD AND OLD PAPER MILL RD		SHEET NO. 12	
		TOTAL SHTS. 12	